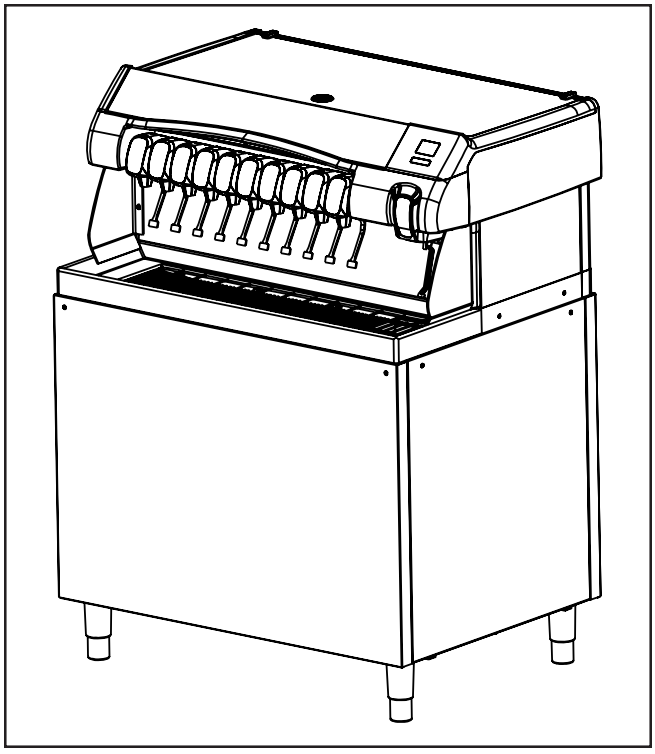
LP-3

Beverage/Ice Dispenser

Servend®

INSTALLATION & SERVICE GUIDE

Part Number 5027727



ISO 9001:2000
Quality System Certified

Manitowoc Foodservice Group

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In accordance with our policy of continuous product development and improvement, this information is subject to change at any time without notice.

May 17, 2007 REV5

FOREWORD

Manitowoc Beverage Equipment (MBE) developed this manual as a reference guide for the owner/ operator, service agent, and installer of this equipment. Please read this manual before installation or operation of the machine. A qualified service technician should perform installation and start-up of this equipment, consult the *Troubleshooting Guide* within this manual for service assistance.

If you cannot correct the service problem, call your MBE Service Agent or Distributor. Always have your model and serial number available when you call.

Your Service Agent _____

Service Agent Telephone Number _____

Your Local MBE Distributor _____

Distributor Telephone Number _____

Model Number _____

Serial Number _____

Installation Date _____

UNPACKING AND INSPECTION

Note: The unit was thoroughly inspected before leaving the factory. Any damage or irregularities should be noted at the time of delivery.

WARRANTY INFORMATION

This LP-3 ice and beverage dispenser may contain an integral ice maker. Any ice maker contained within this dispenser is warranted by the manufacturer of the ice maker (Manitowoc Ice, Inc.) as a separate entity. Consult your local MBE Distributor for terms and conditions of your warranties. Your dispenser warranty specifically excludes all beverage valve brixing, general adjustments, cleaning, accessories and related servicing.

Your warranty card must be returned to Manitowoc Beverage Equipment to activate the warranty on this equipment. If a warranty card is not returned, the warranty period can begin when the equipment leaves the MBE factory.

No equipment may be returned to Manitowoc Beverage Equipment without a written Return Goods Authorization (RGA). Equipment returned without an RGA will be refused at MBE's Receiving Department and returned to the sender at the sender's expense.

Please contact your local MBE distributor for return procedures.

TABLE OF CONTENTS

FOREWORD 3
UNPACKING AND INSPECTION 3
WARRANTY INFORMATION 3
SAFETY 6
- IMPORTANT SAFETY INSTRUCTIONS 6
- CARBON DIOXIDE WARNING 6
- QUALIFIED SERVICE PERSONNEL 6
- SHIPPING, STORAGE, AND RELOCATION 6
- INSTALLATION WARNING 6
- ADDITIONAL WARNINGS 6
- GROUNDING IN STRUCTIONS 7
- PRE-INSTALLATION CHECK LIST 8
- UNIT INSTALLATION 9
- ICEMAKER REQUIREMENTS 10
- COLD CARB AND AMBIENT SYSTEM PRESSURES 10
- CARBONATED/NON-CARBONATED CONVERSION INSTRUCTIONS 10
- DRAINS 11
- PURGE TUBE ROUTING 12
- RECOMMENDED PLUMBING 13

OPERATION 14
- UNIT INSPECTION 14
- SERIAL TAGS 14
- ICE RECOMMENDED FOR DISPENSING 14
- EQUIPMENT 15
- ICE STORAGE AND DISPENSING 16
- ICE AGITATION 16
- ROCKING CHUTE ICE DISPENSING 16
- ICE AUGER 16
- COLD PLATE BEVERAGE COOLING 16
- BEVERAGE VALVES 16
- SPECIFICATIONS 17
- B-I-B 18
- PUMPS 18
- AUTO BAG SELECTORS 18
- BACK ROOM PACKAGE 19
- CARBONATION 20
- INTERNAL CARBONATION 20

TABLE OF CONTENTS

USER MAINTENANCE 21
- HOW TO DISASSEMBLE FOR CLEANING OR MAINTENANCE 21
- DAILY CLEANING 22
- MONTHLY CLEANING 23
- CLEANING AND SANITIZING OF THE DISPENSER 23
- BEVERAGE SYSTEM CLEANING 24
- BAG-IN-BOX SYSTEM 24
- PREVENTATIVE MAINTENANCE 25

EXPLODED VIEWS, PARTS & DIAGRAMS 26
- 115V WIRING DIAGRAM 26
- COVERS & PANELS 27
- SPLASH PANEL, DRAINPAN & CUBER 28
- PANELS & LID BONNET 29
- AUGER, AGITATION & DRAIN 30
- LEGS, CARB TANK & ELECTRIC BOX 31
- AUGER DRIVE, VALVE MOUNT, ROCKING CHUTE, PUMP 32
- 120V AUGER DRIVE 33
- 120V CUBER 34
- RIGHT SIDE BONNET COVER 34
- LEFT SIDE BONNET COVER 34
- 120V CARB PUMP & TANK ASSEMBLY 35
- AUGER & ROCKING CHUTE 36
- VALVE MOUNT CAP & AGITATOR MOTOR 37
- AUGER TRANSITION & 120V ELECTRIC BOX 38
- BIN 39

MANITOWOC® SU1024YC ICEMAKER 40
- CONTROL BOX & EVAPORATOR COMPARTMENT 40
- REFRIGERATION COMPARTMENT 41
- CVD1075 CONDENSING UNIT 43
- CVD1075 CONDENSING UNIT PANELS 44

TROUBLESHOOTING 45

INDEX 50

SAFETY

IMPORTANT SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual. Learn how to operate the SV unit properly. Do not allow anyone to operate the unit without proper training and keep it in proper working condition. Unauthorized modifications to the SV may impair function and/or safety and affect the life of the unit.

CARBON DIOXIDE WARNING

DANGER: *Carbon Dioxide (CO_2) displaces oxygen. Exposure to a high concentration of CO_2 gas causes tremors, which are followed rapidly by loss of consciousness and suffocation. If a CO_2 gas leak is suspected, particularly in a small area, immediately ventilate the area before repairing the leak. CO_2 lines and pumps should not be installed in an enclosed space. An enclosed space can be a cooler or small room or closet. This may include convenience stores with glass door self serve coolers. If you suspect CO_2 may build up in an area, venting of the B-I-B pumps and / or CO_2 monitors should be utilized.*

QUALIFIED SERVICE PERSONNEL

WARNING: *Only trained and certified electrical and plumbing technicians should service this unit. All wiring and plumbing must conform to national and local codes.*

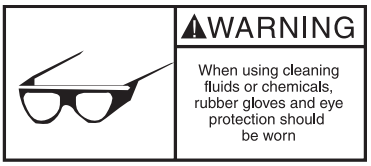
SHIPPING, STORAGE, AND RELOCATION

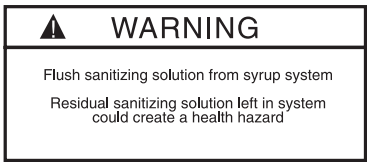
CAUTION: *Before shipping, storing, or relocating this unit, syrup systems must be sanitized. After sanitizing, all liquids (sanitizing solution and water) must be purged from the unit. A freezing environment causes residual sanitizing solution or water remaining inside the unit to freeze, resulting in damage to internal components.*

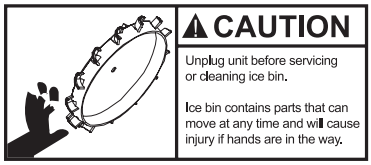
INSTALLATION WARNING

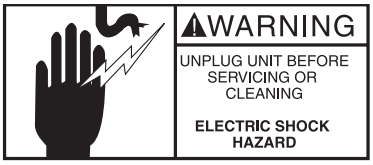
WARNING: *The splash panel must remain in place for installation because the splash panel provides structural integrity to the unit. Do not remove the splash panel until after the unit is installed.*

ADDITIONAL WARNINGS




WARNING
Flush sanitizing solution from syrup system
Residual sanitizing solution left in system could create a health hazard


CAUTION
Unplug unit before servicing or cleaning ice bin.
Ice bin contains parts that can move at any time and will cause injury if hands are in the way.



Installation and start-up of this equipment should be done by a qualified service technician. Operation, maintenance, and cleaning information in this manual are provided for the user/operator of the equipment. **Save these instructions.**

SAFETY

GROUNDING IN STRUCTIONS

WARNING: *Risk of electrical shock. Connect to a properly grounded outlet only.*

This appliance must be grounded. In the event of malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER – Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment grounding conductor. If repair or replacement of the cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the appliance is properly grounded. Do not modify the plug provided with the appliance – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

WARNING – When using electric appliances, basic precautions should always be followed, including the following:

a) Read all the instructions before using the appliance.
b) To reduce he risk of injury, close supervision is necessary when an appliance is used near children.
c) Do not contact moving parts.
d) Only use attachments recommended or sold by the manufacturer.
e) Do not use outdoors.
f) For a cord-connected appliance, the following shall be included:
   - Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
   - Unplug from outlet when not in use and before servicing or cleaning.
   - Do not operate any appliance with a damaged cord or plug, or after the appliance malfunctions or is dropped or damaged in any manner. Return appliance to the nearest authorized service facility for examination, repair, or electrical or mechanical adjustment.
g) For a permanently connected appliance – Turn the power switch to the off position when the appliance is not in use and before servicing or cleaning.
h) For an appliance with a replaceable lamp – always unplug before replacing the lamp. Replace the bulb with the same type.
i) For a grounded appliance – Connect to a properly grounded outlet only. See Grounding Instructions.

SAVE THESE INSTRUCTIONS

INSTALLATION

PRE-INSTALLATION CHECK LIST

When installing any system, first make sure the major components are available. Generally the major components necessary for an installation are:

Post mix system:

- ☐ CO_2 regulator set
- ☐ Beverage dispenser
- ☐ Beverage tubing
- ☐ CO_2 tank
- ☐ Carbonator
- ☐ Stepless (Oetiker) clamps
- ☐ Chain for CO_2 tank

B-I-B System also:

- ☐ B-I-B connectors
- ☐ B-I-B regulator set
- ☐ B-I-B rack
- ☐ B-I-B syrup boxes

Also consider the location of the following items before installation:

- ☐ Water line
- ☐ Drain
- ☐ Power outlet
- ☐ Heating and air conditioning ducts

Before you begin the installation, please check to be sure you can achieve a proper installation. Things to look for include, but are not limited to:

- ☐ If being installed in a counter, be sure you have a flat, level counter top.
- ☐ Is there enough space for the LP-3? You will need to have at least a 36” deep countertop to do a proper installation.
- ☐ How about under the counter? Is there room for the LP-3 with drain underneath and beverage tubing coming from the rear of the unit along with the electricity necessary? It is suggested that you have at least 18” of open space to the right and left of the unit for an easy installation.
- ☐ If being installed in a counter are there any braces or support structures in the counter top that could be cut and damaged?
- ☐ Avoid direct sunlight or close heating / air conditioning ducts.
- ☐ Is a proper drain available? The LP-3 has four 3/4" drains and two 1/4" purge drain.
- ☐ If installed in a cabinet the side, rear, and front panels should be left off for service ability.

INSTALLATION

UNIT INSTALLATION

The LP-3 is shipped in a heavy duty corrugated carton with a wooden pallet. Inspect the unit for freight damage. If any damage is noticed, stop immediately and contact your delivering freight company. You must file a freight claim for your equipment. Failure to do so can void any claims. Manitowoc Beverage Equipment is not responsible for any freight damage.

To properly install the LP-3, Use these guidelines:

- Meet all local code requirements.
- Have a receptacle with the proper voltage at the installation site for connection to the LP-3. A standard 120V grounded outlet is needed for the dispenser. If the unit is equipped with an ice maker, the condensing unit will need 208/230v wherever the condenser is mounted.
- Completely unpack the LP-3, removing all padding and shipping retainers.
- Route the beverage tubing from the syrup racks to the location of the LP-3. Make sure to leave some slack in each of the syrup lines in case the unit needs to be pulled out some for service work or cleaning.
- Make all beverage connections, if necessary, at the syrup racks.
- If installing in a counter mark the counter top with the appropriate cut out opening.
- Check that the cut out location is approved by the owner before any cuts are made in the counter top.
- Compare the marked cut out with the dispenser chest size. Be sure you are going to make the proper hole size.
- Cut the marked opening in the counter top.
- If installing in a cabinet it is recommended you permanently remove the lower panels for easier service access.
- Install the legs or casters provided to the unit. Follow the instructions on the cabinet to install.

Water Connections

There are three water connections, one on the right for the icemaker and two located on the bottom left side of the unit that feeds all the valves for both non-carbonated and carbonated water drinks. (*See Plumbing diagram for exact routing*). The incoming dynamic water pressure must be at least 40 psi and no more than 55 psi. Proper measures must be taken if the water pressure is under or over the operating specifications. Water for the carbonated drinks connect at the brass carbonator pump inlet. Water for the non-carbonated drinks connects to the inline check valve on the inlet to the cold plate.

CO_2

Connect the CO_2 supply line. This connection is also located at the bottom left side of the unit and is already connected to the carbonator. The regulator for the carbonator should be set at 75 psi.

Syrup Connections

Make all syrup connections. These connections are located on the bottom left side of the unit. There are ten connections. Refer to the plumbing diagram for proper valve selection.

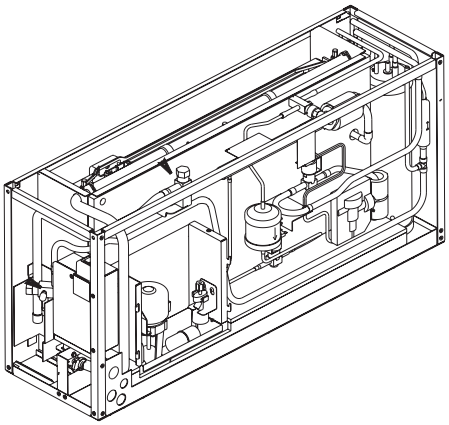
Turn the power switch to on at the electrical box located at the bottom right side of the unit.

INSTALLATION

ICEMAKER REQUIREMENTS

The LP-3 may be equipped with a Manitowoc® SU1024YC icemaker. Refer to the Manitowoc® Ice/Beverage Series QuietQube® Ice Machines with CVD® Technology Installation, Use and Care Manual for additional information. See also the "MANITOWOC® SU1024YC ICEMAKER" section in this manual for exploded views and parts lists.

NOTE: To turn the SU1024YC ice maker on and off and put in clean mode you need to access the toggle switch.



1. To access the toggle switch for the ice maker lift and turn the latch at the front of the lid (see the Covers and Panels section item 5).
2. Using the latch and rubber handle, lift the lid off
3. The toggle switch is located on the back right corner. Switch forward for ON, center for OFF and back for CLEAN.

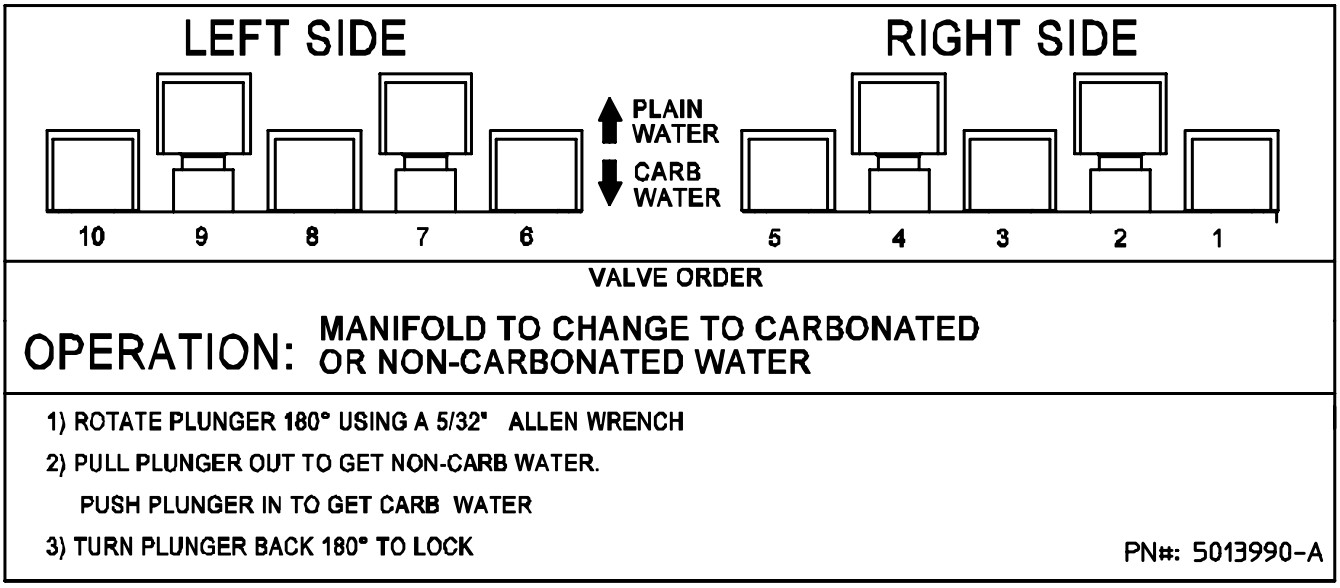
COLD CARB AND AMBIENT SYSTEM PRESSURES

1. Incoming tap water should be at a minimum pressure of 40 psi and a maximum of 55 psi with carbonator pump operating (measured at inlet to pump).
2. BIB pressure gauge set for 60 psi or according to the legnth of the line run.
3. Carbonator Pressure gauge (Use Preset Regulator):
   - Cold Carbonation set for 75 psi.

NOTE: If incoming water pressure is under 40 psi, a water booster is required. If incoming water pressure is over 55 psi, a water regulating valve is required.

CARBONATED/NON-CARBONATED

CONVERSION INSTRUCTIONS



INSTALLATION

DRAINS

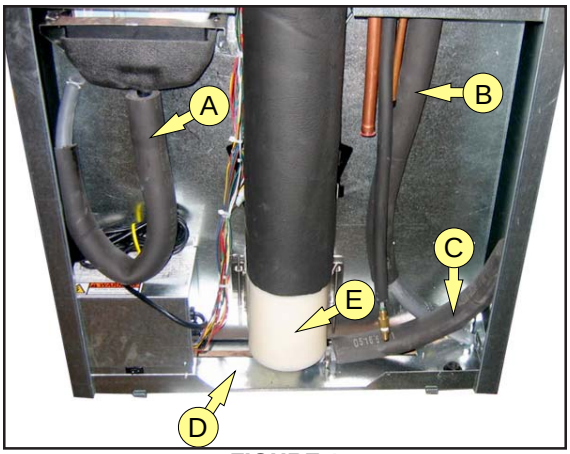


FIGURE 1

Right Side of unit as shipped:

1. During installation all drains on right side of the unit must be properly routed.
2. Remove right side lower panel to access the drain pan (A), icemaker (B) and auger (C) drains. (see figure 1)
3. Route drain pan drain (A) through cut-out in base-plate (D) and follow all national plumbing codes.
4. Route Icemaker drain (B) through cut-out in base-plate (D) and follow all national plumbing codes. (see figure 2)
5. Pull the insulation covering the auger drain (C) over the clamp and fittings on the auger base (E).
6. Route auger drain (C) through cut-out in baseplate (D) and follow all national plumbing codes.

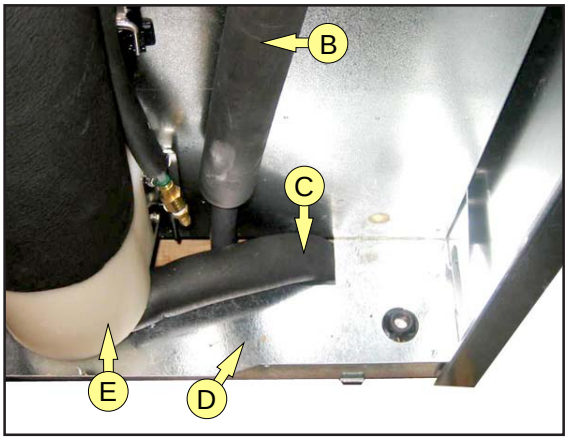


FIGURE 2

Drain Kit:

FIGURE 3

1. Attach Drain Kit (figure 3) to barbed gray drain elbow (F). Use worm gear clamp that is provided to secure the hose to the barb.
2. Route the drain hose through the opening in the LP-3 base plate (D). Follow all local & national plumbing codes.(see figure 5)
3. Pull the insulation (G) on the drain kit over the gray drain elbow and the CPVC drain fitting until it is flush with the stainless steel side panel (H).

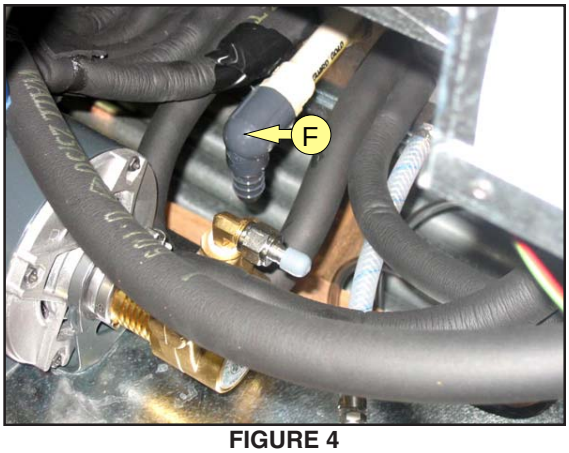


FIGURE 4

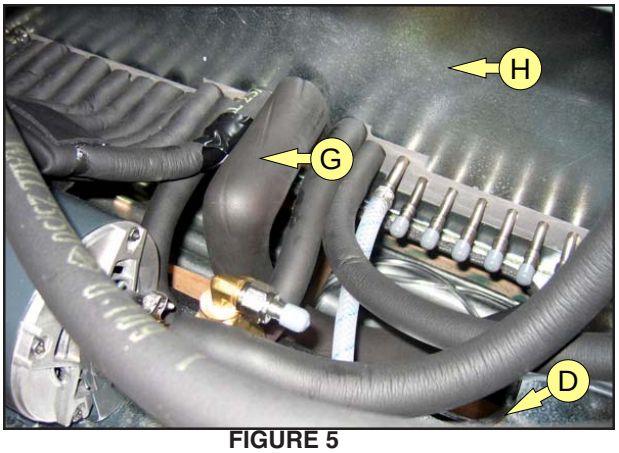


FIGURE 5

INSTALLATION

PURGE TUBE ROUTING

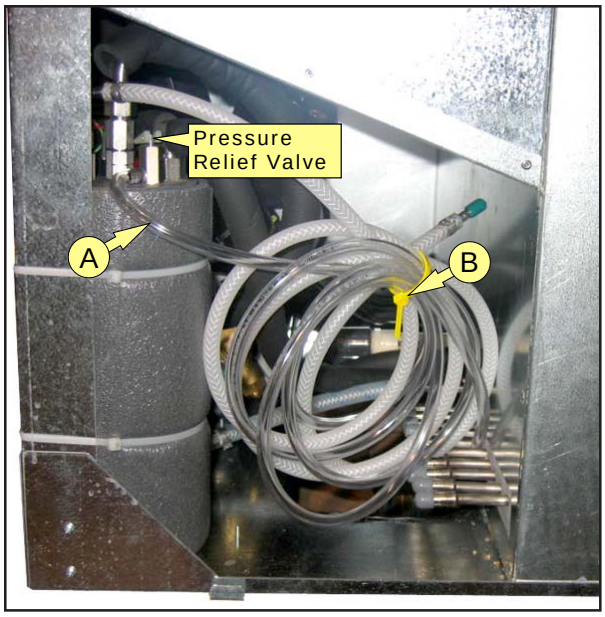


FIGURE 1

1. During installation of the LP-3 the carbonator tank purge tube (A) must be properly routed to a drain. The carbonator tank purge tube (A) may be accessed by removing the front panel of the LP-3. Clip the tie strap (B) and uncoil the purge tube (A). (see figure 1)

2. Route the carbonator tank purge tube (A) to the opening beneath the ice bin drain elbow (C). Be sure not to collapse or kink the carbonator tank purge tube (A) during routing from the unit to the drain. The purge tube (A) is connected to the pressure relief valve (D) on the carbonator tank and must be routed to a drain. (see figure 2)

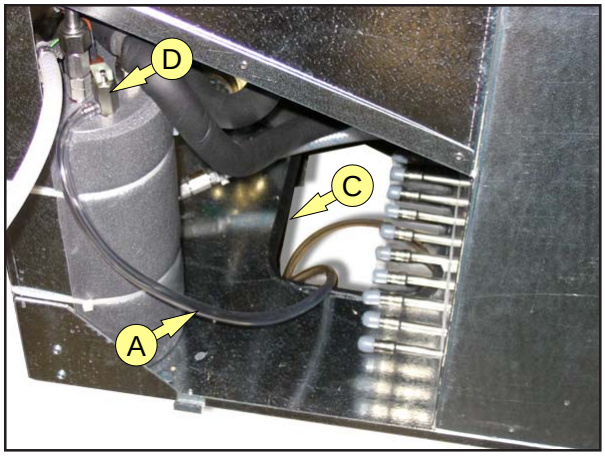


FIGURE 2

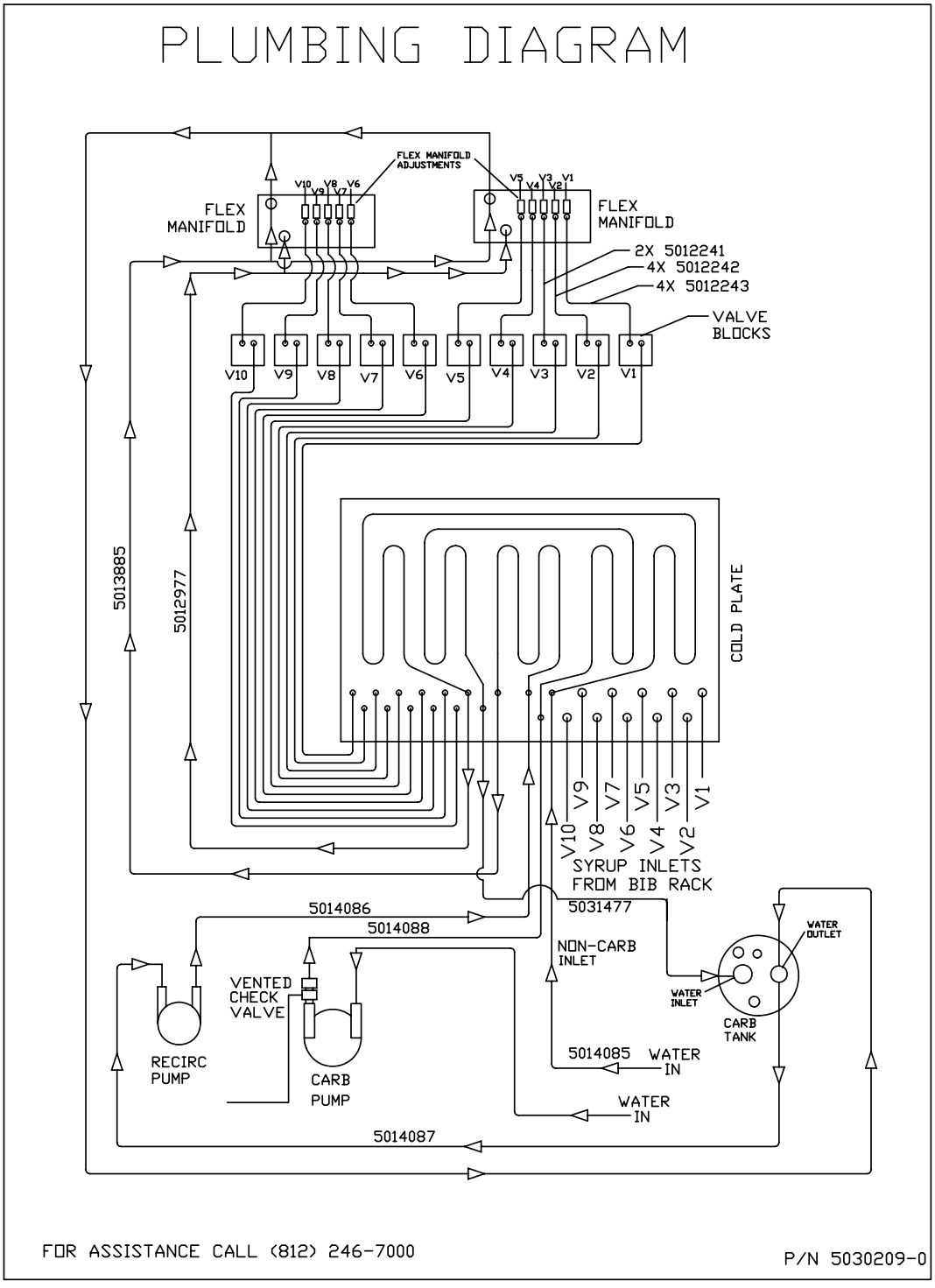
3. Strap the carbonator tank purge tube to the drain hose and route to a drain. Follow all local and national plumbing codes when routing the carbonator tank purge tube to the drain.

INSTALLATION

RECOMMENDED PLUMBING

The plumbing diagram is printed on a white vinyl label, normally located above the inlet tubes for syrup and water, it can be accessed by removing the splash panel of the dispenser. The plumbing diagram label explains which inlet coldplate fittings supply which dispenser valves and water manifolds.

NOTE: Valves are read from right to left.



A check valve must be installed in the water supply line 3 feet from the noncarbonated water connection "PW". Contact factory if not installed.

OPERATION

UNIT INSPECTION

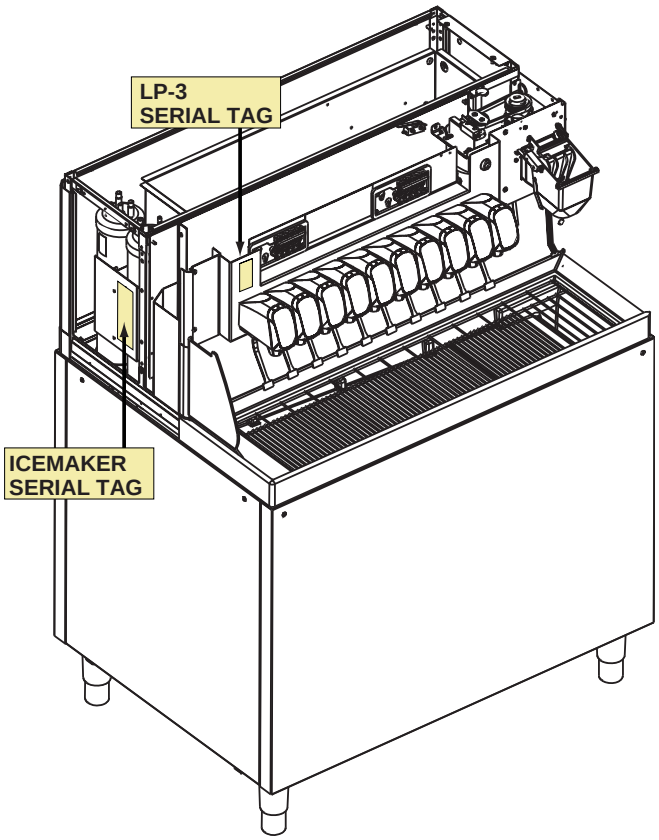
Thoroughly inspect the unit upon delivery. Immediately report any damage that occurred during transportation to the delivery carrier. Request a written inspection report from a claims inspector to document any necessary claim.

SERIAL TAGS

At the time of installation both the LP-3 (ice and drink dispenser) and the SU1024-YC (ice maker) serial numbers must be recorded.

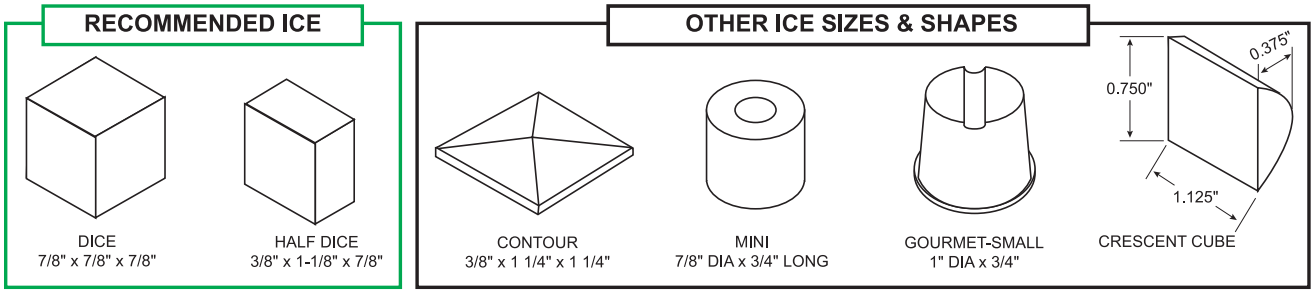
The LP-3 serial number may be found by removing the valve cover. The serial tag is located to the left of the left hand Flexible Manifold above the #10 dispensing valve.

The SU1024-YC serial number may be found by removing the Left Side Plastic Cap. The serial tag is located on the galvanized panel that protects the Receiver.



ICE RECOMMENDED FOR DISPENSING

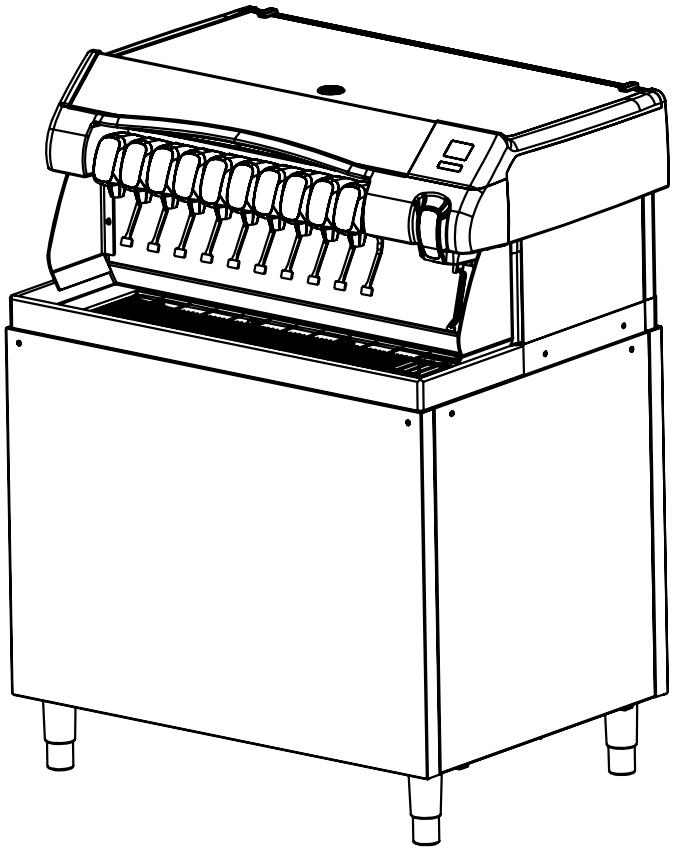
Servend dispensers are designed to dispense hard, cube ice up to one-inch square. The ice shapes and sizes listed above are recommended for dispensing. **Warm "Super Cooled" Ice Before Dispensing** "Super Cooled" ice is not recommended for dispensing. "Super cooled" ice is ice that has been stored in freezers below 32°F. Should it be necessary to temporarily use "super cooled" ice, allow the ice to warm at room temperature for 25 to 30 minutes before placing the ice in the dispenser.



Dispensing compressed flake "nugget" ice in Servend dispensers takes special handling. Most dispensers require special bin components plus a universal ice management kit. Contact MBE regarding details for your particular installation.

OPERATION

EQUIPMENT



The LP-3 is a 10 flavor ice and beverage dispenser, with the ice storage bin located below the counter top level. A drink tower extends 19" above the counter top level. The LP-3 is designed to fit into a 42.5" wide by 30.38" deep space, and can be counter mounted (like a conventional drop-in unit), or arranged as a stand alone with cosmetic stainless panels.

Within the 19" drink tower is an optional 1000 lb/day remote ice cube maker, especially designed by Manitowoc® for this application.

Beverage cooling is accomplished by means of a cold plate positioned below the storage bin, and the unit can include an internally mounted or externally mounted carbonator system. In order to allow any valve to dispense carbonated or non-carbonated beverages, two Servend Flex Manifolds are incorporated into the tower.

Ice is dispensed from the storage bin by means of the paddle wheel into an auger which raises the ice to the top of the tower where it is dispensed by means of a rocking chute.

The drink tower is enclosed by 5 panels, one on each side and back, as well as a splash panel in front below the valves, and a top panel. Safety switches will disable the ice dispensing circuit when either the top panel or the splash panel are removed. The drive motors for agitation and auger ice lifting are mounted using locking pins, and thus can be removed for maintenance and cleaning without tools. Access is provided for in place cleaning of the ice maker. The ice maker water valve, water pan, curtain, and water pump can all be removed for service and cleaning without removing the ice maker itself.

The LP-3 can be built in either a left hand or right hand ice dispense arrangement. In the right hand configuration water/syrup lines from the BIB pumps are brought in to the unit at the lower left, drains, electrical and refrigerant lines on the right.

Drain hoses are provided for the waste water from the cuber, spillage and melt water from the drain pan, and melt water from the storage bin and auger. A water supply line is necessary for the ice maker and beverage system, each connecting to a $^{3}/_{8}$" ID. beverage tube.

OPERATION

ICE STORAGE AND DISPENSING

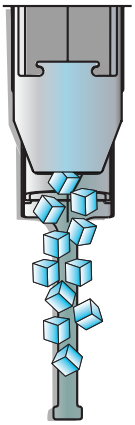
Ice is stored in the dispenser's bin. Ice below the stainless steel bin liner is used to cool the aluminum cold plate, at the bottom of the ice dispenser bin. Ice above the stainless steel bin liner is dispensed into the customer's cup.

Ice is transported from the bin to the ice dispense point by the paddle wheel and vertical auger. The injection molded paddle wheel has paddles which push the ice into a vertical auger that carries it to the dispense point.

ICE AGITATION

The paddle wheel and auger carry ice. Periodic agitation is standard on the LP-3. During periodic agitation, the paddle wheel, auger and agitator turn for approximately three seconds every hour. The door lock prevents ice from being dispensed during the agitation cycle.

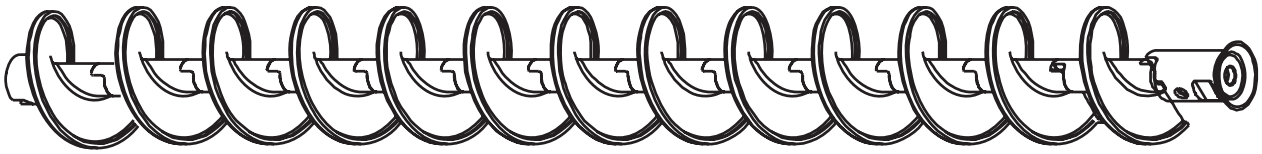
ROCKING CHUTE ICE DISPENSING



As the customer presses the rocking chute, the arm at the top left rear of the chute pushes upward on the door lock. The door opens until it contacts the stops in the mounting brackets. The plastic arm on the ice chute also activates the lever of the ice dispensing switch. When activated, the micro switch starts the gear motor and auger motor. The gear motor turns the paddle wheel and agitator bar, the auger motor turns the auger.

ICE AUGER

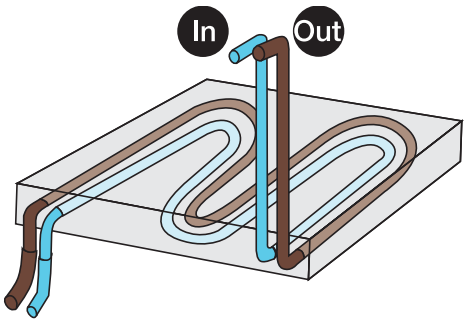
Ice is pushed into the auger by the paddlewheel. The auger lifts the ice from the bottom of the bin to the ice dispense point at the rocking chute.



COLD PLATE BEVERAGE COOLING

A cold plate is a block of aluminum with serpentine stainless steel tubes molded inside the aluminum block. The cold plate is approximately the same length and width as the bottom of the dispenser bin. Ice sits on top of the cold plate and cools the cold plate.

The stainless steel tubes inside the cold plate carry carbonated water (soda water), noncarbonated water (plain water) and syrup to the beverage valves. While flowing through the stainless steel tubes in the cold plate, water and syrup are chilled to serving temperature.

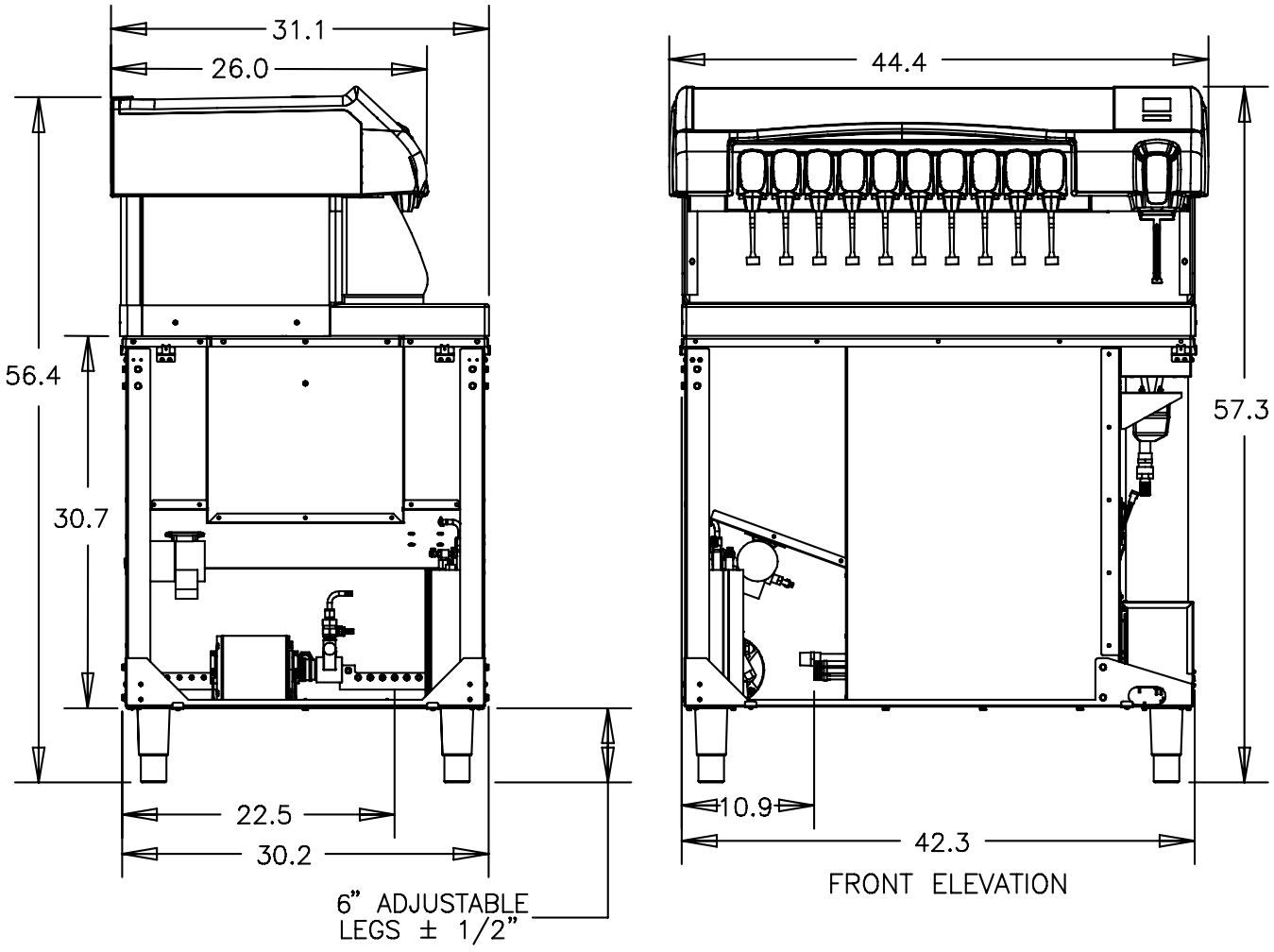


BEVERAGE VALVES

Post-mix beverage valves are designed to precisely meter the flow of both water and syrup to obtain the proper mixing ratio. The syrup and soda water components of the post-mix beverage are mixed as they leave the beverage valve.

OPERATION

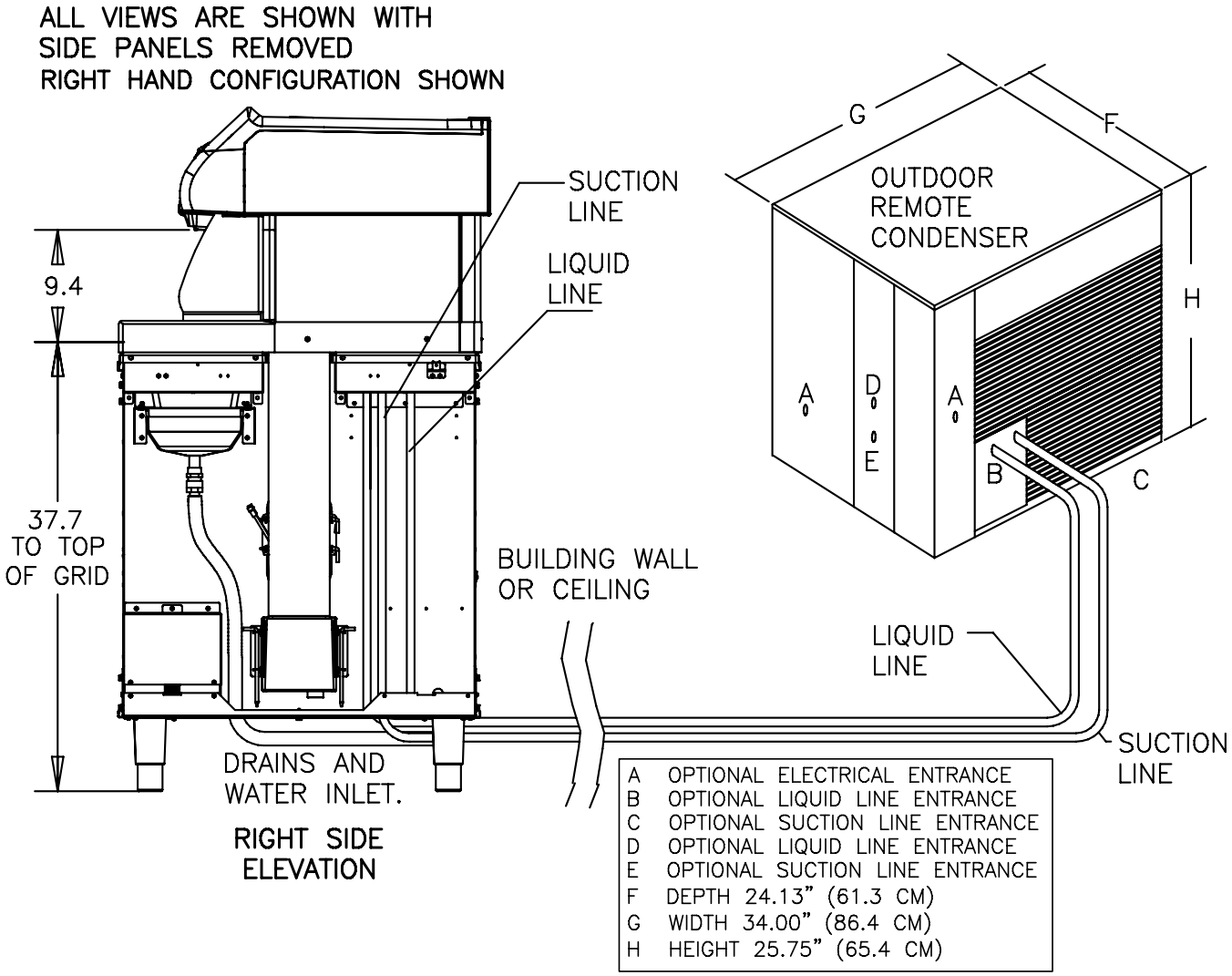
SPECIFICATIONS



Dimensions	44.4" X 31.1" X 57.3" (including top cover)
Weight	570 lbs (with ice 870 lbs)
Electrical Requirements	110 vac 60 hz 4 amps max.
Water	45 to 55 psi at 3 gpm
Ice Machine Options:	Offered with 1000 lbs/day CVD model SU1024Y with remote condenser
Drain	Four $^{3}/_{4}$" drain hoses to be routed to a floor drain
Syrups	$^{5}/_{16}$ barb connections for 10 flavors
Standard with Equipment:	Internal carbonation or ambient carbonation for commercial applications.
Options:	With or without ice maker, right or left ice dispenser.
Listing/Approvals:	UL and NSF

OPERATION

SPECIFICATIONS



B-I-B

The Bag-In-Box system refers to a plastic disposable bag. The B-I-B normally contains 5 gallons of syrup, however some locations offer 2 1/2 or 3 gallon B-I-B units. This plastic bag is then held inside a cardboard or other container. B-I-B systems are for post-mix applications only.

PUMPS

The syrup in a B-I-B system is delivered to the beverage system through gas operated pumps. These pumps extract the syrup out of the bags forcing the syrup throughout the system.

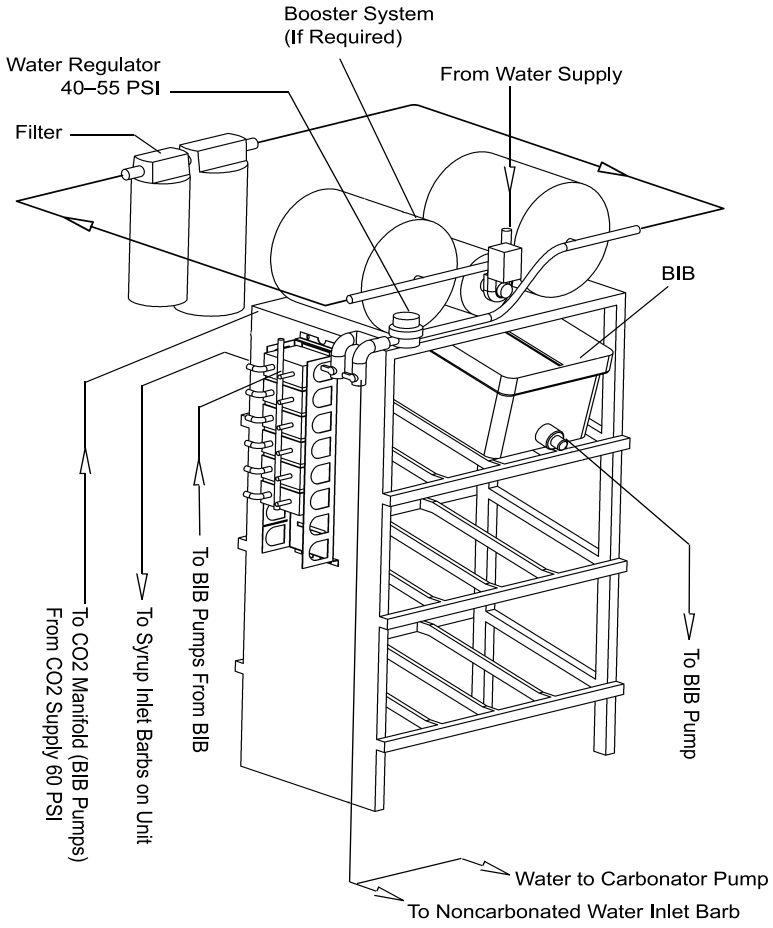
AUTO BAG SELECTORS

These are used on higher volume B-I-B systems where two or more bags of the same product are connected to one pump and one system. An auto bag selector is essentially a valve that automatically changes from one bag (or series of bags) to another bag (or series of bags) of syrup as the bags empty, allowing a constant flow of product.

OPERATION

Your syrup location can vary depending on the volume of beverages served and ease of accessibility. Your beverage system may set in a back storage room. Configurations are almost limitless. Check the temperatures expected for the storage location. Adverse temperatures can affect the storage and quality of beverage products. It is recommended the temperature of storage location should not fall below 40° F or rise above 90° F.

BACK ROOM PACKAGE



1. **Incoming tap water** - should be at a minimum dynamic pressure of 40 psi and maximum of 55 psi.
2. **Carbonator Water pump motor -** Powers the water pump. The water pump motor is part of the carbonator pump deck.
3. **Carbonator Water pump -** Pumps tap water into the carbonator tank. The water pump is part of the carbonator. The incoming water for the carbonator must be first ran through the pump before connecting to the proper cold plate inlet.
4. **Internal/External Carbonator tank -** Combines CO_2 gas and tap water to form carbonated water. The "carbonator" is the carbonator tank, water pump and water pump motor.
5. **CO_2 cylinder -** Holds highly pressurized carbon dioxide (CO_2). The CO_2 cylinder is a steel or aluminum cylinder tank. CO_2 gas flows through the primary pressure regulator.
6. **BIB pressure gauge -** Set for a minimum of 60 psi. Indicates CO_2 pressure going to B-I-B pumps.
7. **Primary pressure regulator -** Lowers the CO_2 gas pressure, to 75 psi, so the CO_2 gas will be at the proper pressure to enter the carbonator regulator.
8. **Secondary pressure regulator -** Lowers the CO_2 gas pressure before the CO_2 gas flows to the syrup pump. CO_2 pressure, activates the syrup pump.
9. **Syrup pump -** Draws syrup out of the bag-in-box syrup package. Syrup flows through the syrup lines to the dispenser for chilling, then dispensing. There is a syrup pump for each bag-in-box syrup system.
10. **Bag-In-Box syrup cartons -** Box which contains a plastic bag, filled with syrup. Usually, six bag-in-box cartons are placed on a rack.

OPERATION

CARBONATION

The purpose of the carbonator is to take regular tap water at street water pressure (minimum 40 PSI dynamic or flowing pressure) 3/8” water line, and increase the water to beverage system pressure (usually 75 PSI). This water is then combined with the CO_2 gas. Chilling the mixture before dispensing will assist in locking the carbon dioxide into the water. After dispensing, the CO_2 may be unlocked from the liquid. The CO_2 will gradually leave the liquid due to pressure and temperature changes.

Components

The components of the carbonator are: water pump, an electric motor to operate the pump, carbonator tank where the water & CO_2 mix, and a water level control.

Operation

Carbon Dioxide (CO_2) leaves the storage tank and arrives at the carbonator tank through the gas inlet. Water supply enters the carbonator pump inlet at regular street water line pressure (minimum 40 PSI dynamic or flowing pressure). The water pump increases the pressure of the water, which allows the water to flow into the carbonator tank. The CO_2 and the water mix together in the carbonator to produce the carbonated water that is then sent to the tank soda dispenser.

The agitation of the water & CO_2 together in the tank under high pressure creates the carbonated water. The quality of carbonation (percent of CO_2 mixed in the water) increases as the water temperature decreases and exposure time increases.

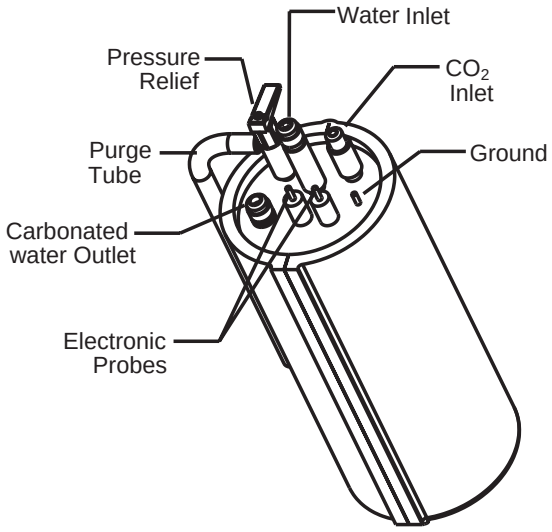
The water level in the carbonator tank is controlled by a water level control in the tank. This control turns the pump motor off and on to maintain a preset level of liquid in the tank. The water level control is two conductivity probes wired to a liquid level control board.

INTERNAL CARBONATION

The carbonator tank has two inlets and one outlet connection, as well as a relief valve and two conductivity probes. The water inlet is topped by a 3/8" male flared fitting. The carbonator will be pre-plumbed as it leaves the factory. If the carbonator needs to be serviced or if the fittings need to be replaced, make sure a nylon washer is used inside each inlet fitting to prevent leaks.

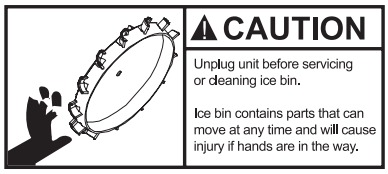
The conductivity probes are used to control the level of water inside the carbonator tank. The red probe, or the “high” probe, is the shorter of the two. When the level of the water reaches the bottom of the red probe, the pump shuts off. The pump starts when the water level inside the tank goes below the bottom tip of the of the black or "low" probe. Both probes are wired to the electronic liquid level control, which is a circuit board mounted inside the electrical box that activates the pump and motor. Removing the cover of the electrical box will grant access to the circuit board. As the control receives a signal from the conductivity probes, it activates the pump motor, which will pump water into the carbonator until the water reaches the high probe.

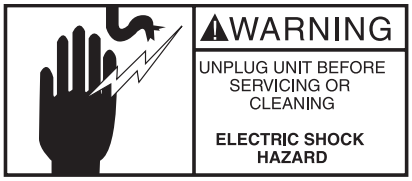
The pump is a standard 125 GPH brass rotary vane pump. The flared fittings accept the same swivel/barb connectors used on the carbonator water connections. Also, water enters the pump from the water source on the side that has the strainer.



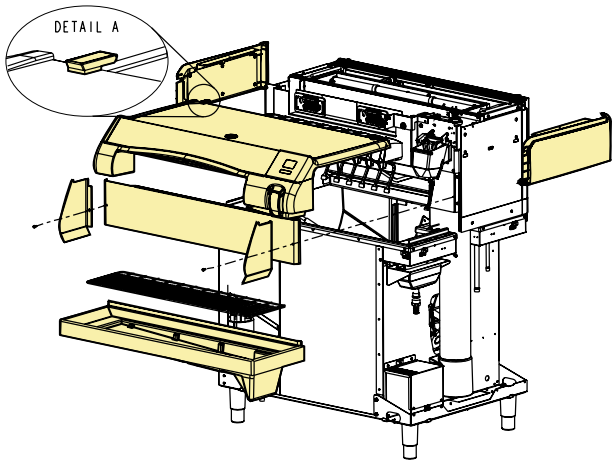
USER MAINTENANCE

HOW TO DISASSEMBLE FOR CLEANING OR MAINTENANCE

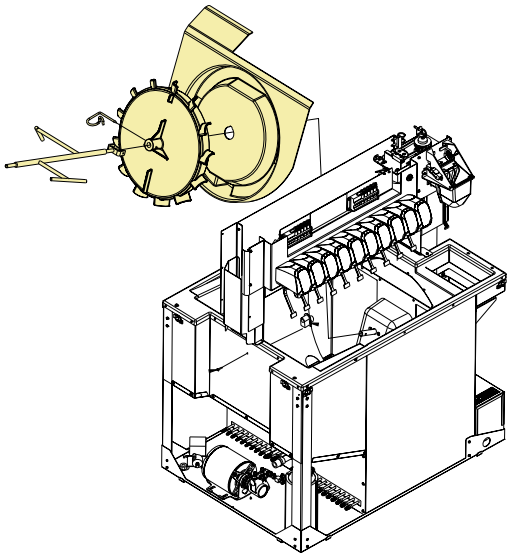

CAUTION
Unplug unit before servicing or cleaning ice bin.
Ice bin contains parts that can move at any time and will cause injury if hands are in the way.



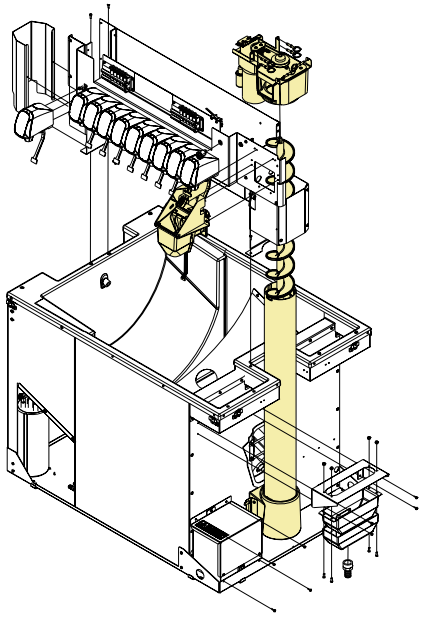
1. Disconnect electrical power to the unit.
2. Remove thumb screws holding plastic splash guards and stainless splash panel.
3. Remove grid and drainpan.
4. Release the plastic latches on the back of either side of the lid assembly. (see Detail A)



5. Slide the lid assembly forward and lift to remove.
6. Remove the plastic side panel assemblies.
7. Remove all ice from the ice storage bin.
8. Rotate the agitator arm so the paddle wheel pin handle is pointing up, toward the ceiling.
9. Loosen the hand-removable paddle wheel pin from the agitator by twisting counter clockwise until it snaps from the agitator bar.



10. Then remove the paddle wheel pin from the hole in the agitator. Push the agitator bar toward the back of the unit until the agitator is free of the paddle wheel hub and remove the agitator.
11. Remove the bin liner.
12. Remove horizontal tower cover brace then remove the auger motor assembly by pulling the 7 pins holding it in place, disconnecting the 2 sets of insulated quick slides to the motor, and lifting the assembly straight up and out of the unit.



13. Lift the auger and auger tube up and out of the unit.
14. Remove the auger transition by pulling the 2 pins holding it in place.
15. Remove the ice chute assembly and spout.

CLEANING CHECKLIST

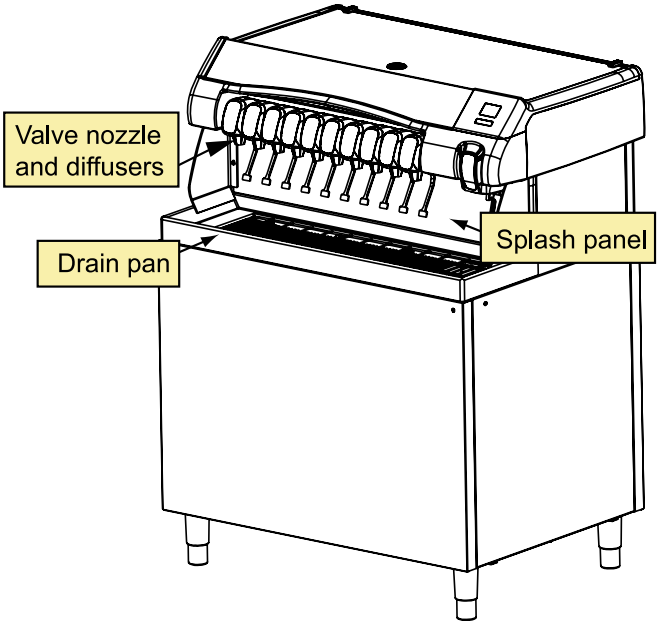
- Check CO_2 supply. If CO_2 supply is low, an arrow on the primary regulator gauge will point to a shaded area that reads “Low CO_2” or “Change CO_2 Cylinder.”
- Check syrup supply.
- Clean drain pan, grid, and splash panel.
- Clean the valve nozzles and diffusers.

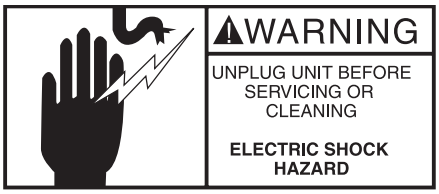
USER MAINTENANCE

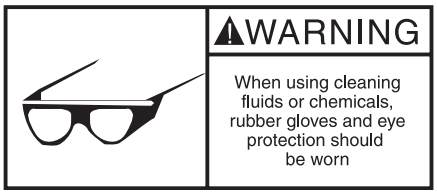
DAILY CLEANING

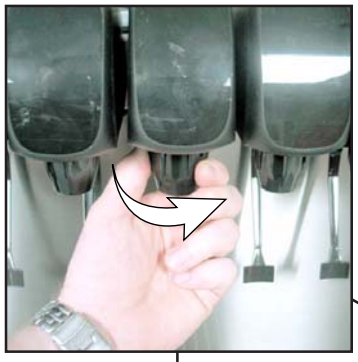
CAUTION: Use only warm soapy water to clean the exterior of the tower. Do not use solvents or other cleaning agents. *Do not pour hot coffee into the drain pan. Pouring hot coffee down the drain pan can eventually crack the drain pan, especially if the drain pan is cold or still contains ice.*

All cleaning must meet your local health department regulations. The following cleaning instructions are provided as a guide.









Clean the exterior, nozzles and diffusers:

1. Turn off the key switch located on either right or left side of the unit.
2. Lift the grid and remove it from the drain pan.
3. Using mild soap, warm water and a clean cloth, wipe the drain pan and splash panel. Then, rinse with clean, warm water. Allow plenty of warm (not hot) water to run down the drain of the drain pan, to remove syrup residue that can clog the drain opening.
4. Wash the grid, then rinse with clean water. Place the grid back in the drain pan.
5. Wash all exterior surfaces of the unit with warm water and a clean cloth. Wipe again with a clean, dry cloth.

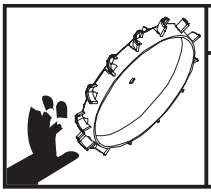
Clean the dispensing valves:

6. Remove nozzles and diffusers from beverage valves.
7. Rinse nozzle and diffuser with warm, clean water.
8. Clean nozzles and diffusers with soapy water and a soft bristle brush.
9. Clean the underside of the beverage valves with warm, soapy water. Rinse with clean damp towel.
10. Replace nozzles and diffusers on valves.
11. Turn on the key switch.

USER MAINTENANCE

MONTHLY CLEANING

Scheduled cleaning must be in compliance with local health codes. This cleaning schedule is a recommendation. Follow cleaning and sanitizing instructions found in the Manitowoc manual to clean and sanitize the icemaker. The LP-3 drainpan and splash panel must be removed before cleaning the icemaker.



⚠WARNING

Unplug unit before servicing or cleaning refrigeration deck

Refrigeration deck contains parts that can move at any time and will cause injury if hands are in the way

⚠ WARNING

Flush sanitizing solution from syrup system

Residual sanitizing solution left in system could create a health hazard

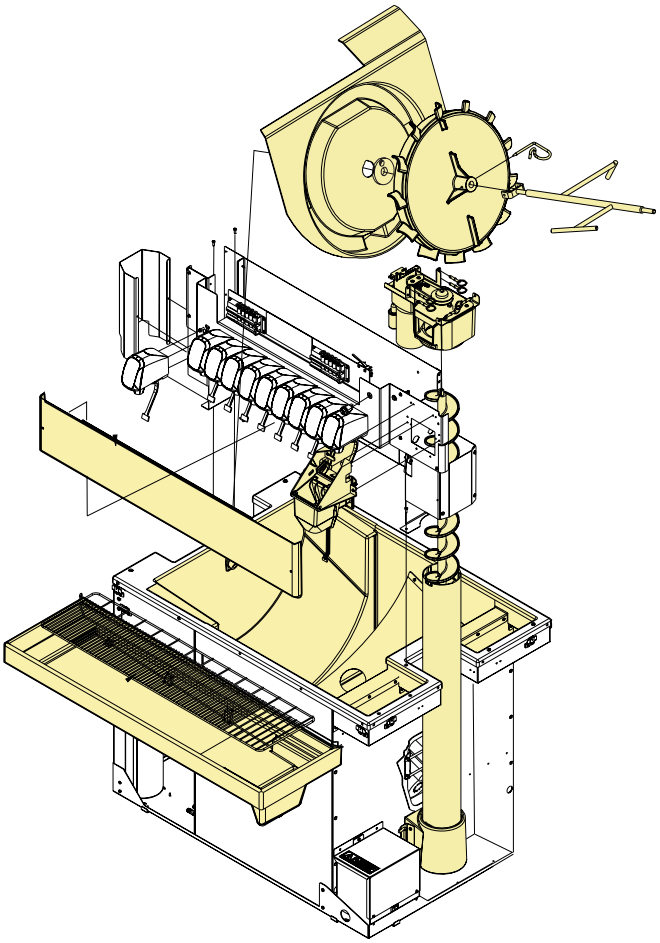
CLEANING AND SANITIZING OF THE DISPENSER

Note: Sanitize the dispenser at initial start-up in addition to monthly sanitizing.

Mix a solution of mild, nonabrasive detergent to clean the dispenser bin and components. Using a clean cloth or a soft bristle brush, clean the following dispenser parts:

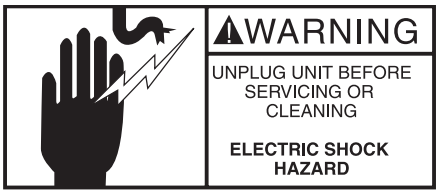
- Cold plate
- Ice storage bin, including the
- Agitator
- Agitator Pin
- Bin liner & support
- Drainpan support bracket
- Auger
- Auger tube
- Auger transition
- Ice chute outer bracket
- Ice chute
- Ice chute door
- Ice chute lock
- Ice chute spout
- Paddle wheel
- Paddle wheel bushing
- Paddle wheel area

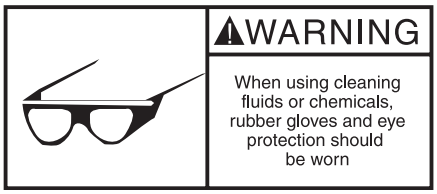
Rinse all parts in clean, running water. Mix a sanitizing solution of ¼ ounce liquid, unscented laundry bleach (5.25% Cl Na O concentration) for each gallon of water, to supply 100 PPM of available chlorine. Using this solution and a clean cloth or soft bristle brush, clean the dispenser parts listed above. Allow parts to air-dry then reassemble.



USER MAINTENANCE

BEVERAGE SYSTEM CLEANING

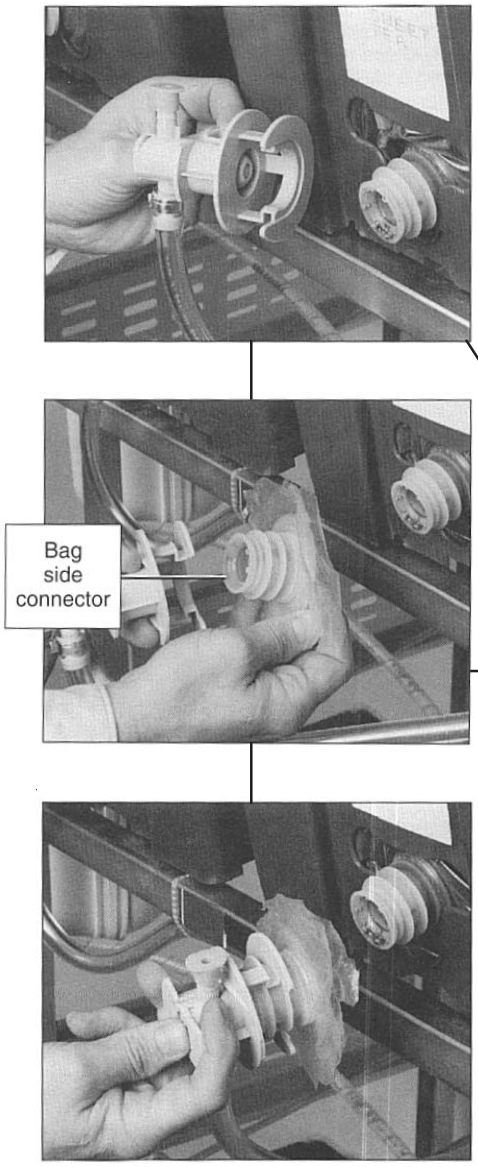




Sanitize the beverage system at initial start-up as well as during regularly scheduled cleaning. The drain pan must be in place under soda valves, to carry away detergent and sanitizing agents that will be flushed through valves.

BAG-IN-BOX SYSTEM

The procedure below is for the sanitation of one syrup circuit at a time. Repeat to sanitize additional circuits.



You will need the following items to clean and sanitize the Bag-in-Box (BIB) beverage system:

- Three (3) clean buckets
- Plastic brush or soft cloth
- Mild detergent
- Unscented bleach (5% Na CL O) or Commercial sanitizer
- Bag-In-Box bag connector

1. Prepare the following in the buckets:
   - **Bucket 1 -** warm to hot tap water for rinsing.
   - **Bucket 2 -** mild detergent and warm to hot water.
   - **Bucket 3 -** mix a solution of unscented bleach (5% Na CL O) or commercial sanitizer and warm to hot water. Mixture should supply 100 PPM available chlorine ($^1/_4$ oz. bleach to 1 gallon water).
2. Disconnect the “syrup-line side” of the bag-in-box connector.
3. Rinse connector with warm tap water.
4. Connect syrup connector to BIB connector and immerse both into Bucket 1. A “bag-side” connector can be created by cutting the connector from an empty disposable syrup bag.
5. Draw rinse water through system until clean water is dispensed. Most beverage valves allow the syrup side to be manually activated by depressing the syrup pallet.
6. Connect Bucket 2 to system.
7. Draw detergent solution through system until solution is dispensed.
8. Repeat steps 2-7 until all syrup circuits contain detergent solution.
9. Allow detergent solution to remain in the system for 5 minutes.

USER MAINTENANCE

BAG-IN-BOX SYSTEM

10. Connect Bucket 3 to system.
11. Draw sanitizing solution through system until solution is dispensed.
12. Repeat step 11 until all syrup circuits contain sanitizer solution.
13. Allow sanitizer solution to remain in system for 15 minutes.
14. Remove nozzles and diffusers from beverage valves.
15. Scrub nozzles, diffusers and all removable valve parts (except electrical parts) with a plastic brush or a soft cloth and the detergent solution.
16. Soak nozzles, diffusers and removable valve parts (except electrical parts) in sanitizer for 15 minutes.
17. Replace nozzles, diffusers and valve parts.
18. Connect Bucket 1 to system.
19. Draw rinse water through system until no presence of sanitizer is detected.
20. Attach syrup connectors to BIB's.
21. Draw syrup through system until only syrup is dispensed.
22. Discard first 2 drinks.

PREVENTATIVE MAINTENANCE

Preventative maintenance is a vital part of keeping your dispenser in top condition. Following the guidelines below will assist you in continued trouble free operation of your unit.

1. Conduct daily maintenance of the machine.
2. Perform monthly maintenance of the machine.
3. Perform periodic maintenance and sanitizing of beverage system.
4. Do not overfill the dispenser bin with ice.
5. Do not allow the dispenser to sit for prolonged periods of non use with ice in the bin.
6. Most ice dispenser service problems are caused by low usage of the ice dispenser.
7. Do not allow ice to remain in the bin more than a day in order to prevent ice from freezing together and/or stagnant ice.

Possible excess ice storage reasons:

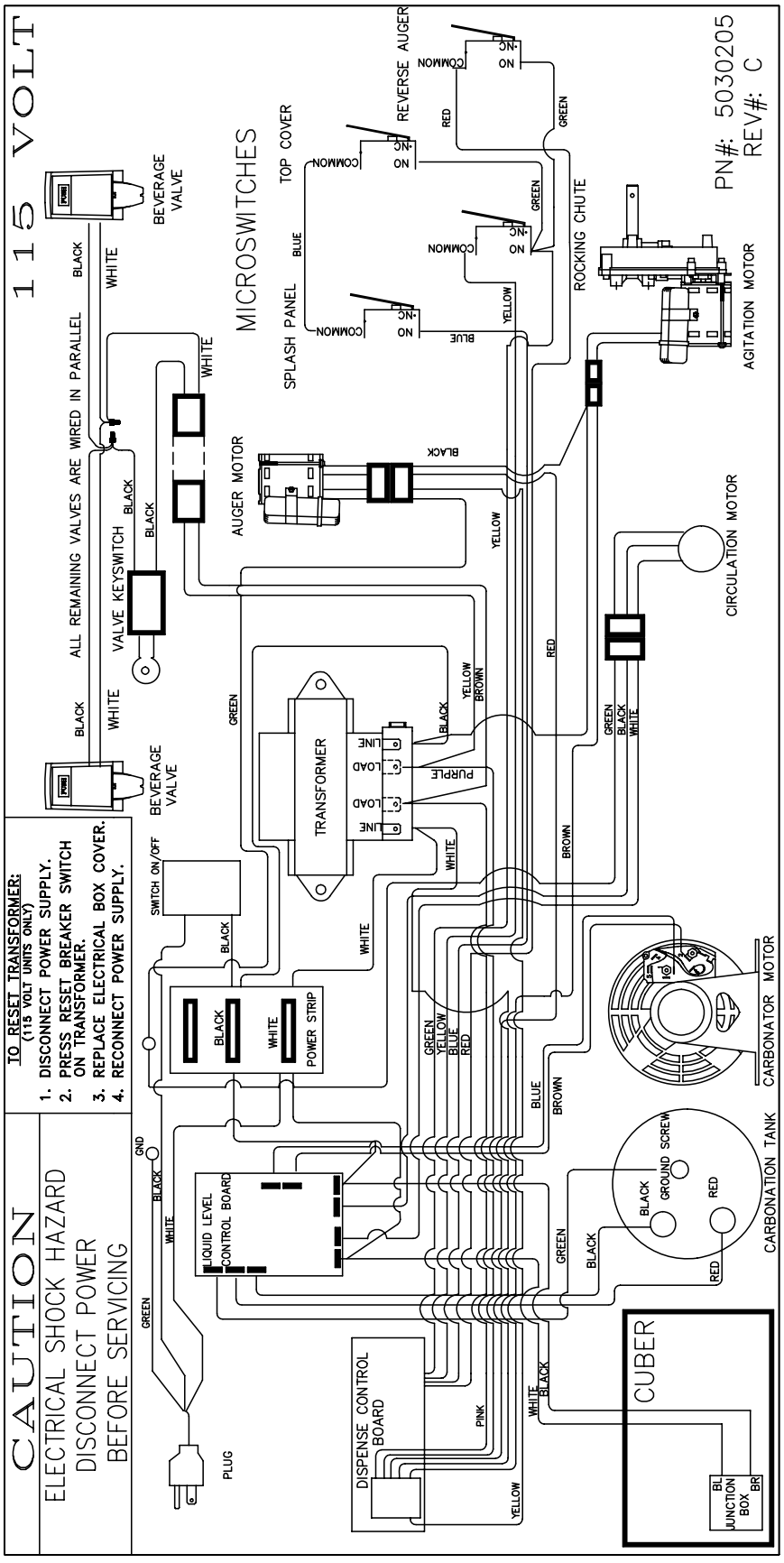
- Storage capacity exceeds daily requirements.
- Low demand during the off season.
- Dispenser oversized with future growth in mind.

Lower ice storage to meet one day's needs. If you manually fill ice, fill only with the appropriate amount of ice. Fill the dispenser with fresh ice each morning. Do not fill the dispenser at night just before shut down. Ice cubes can freeze together if not dispensed.

Contact MBE at 1-800-367-4233 for more information about our **P**ro**A**ctive **M**aintenance Program.

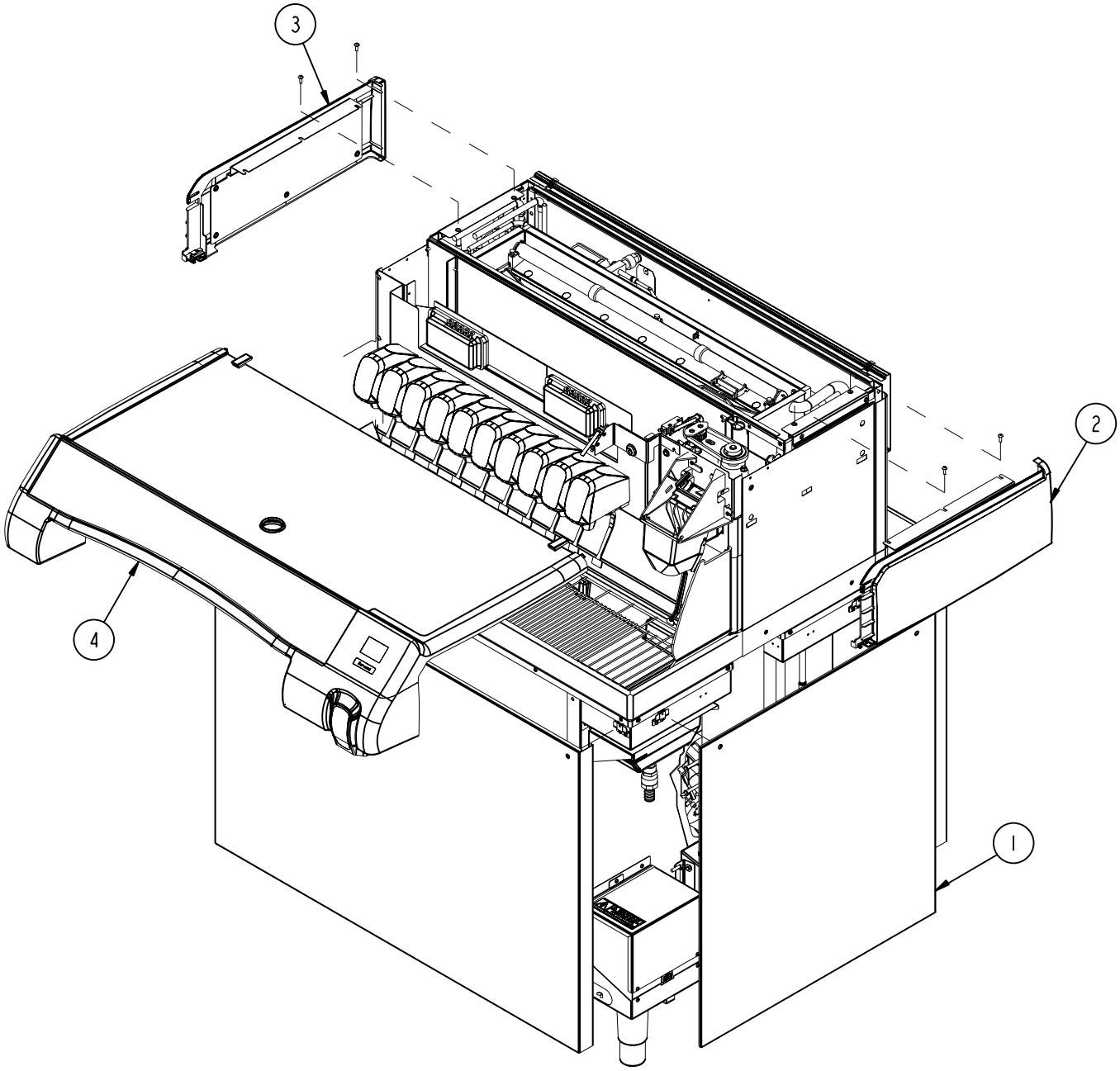
EXPLODED VIEWS, PARTS & DIAGRAMS

115V WIRING DIAGRAM



EXPLODED VIEWS, PARTS & DIAGRAMS

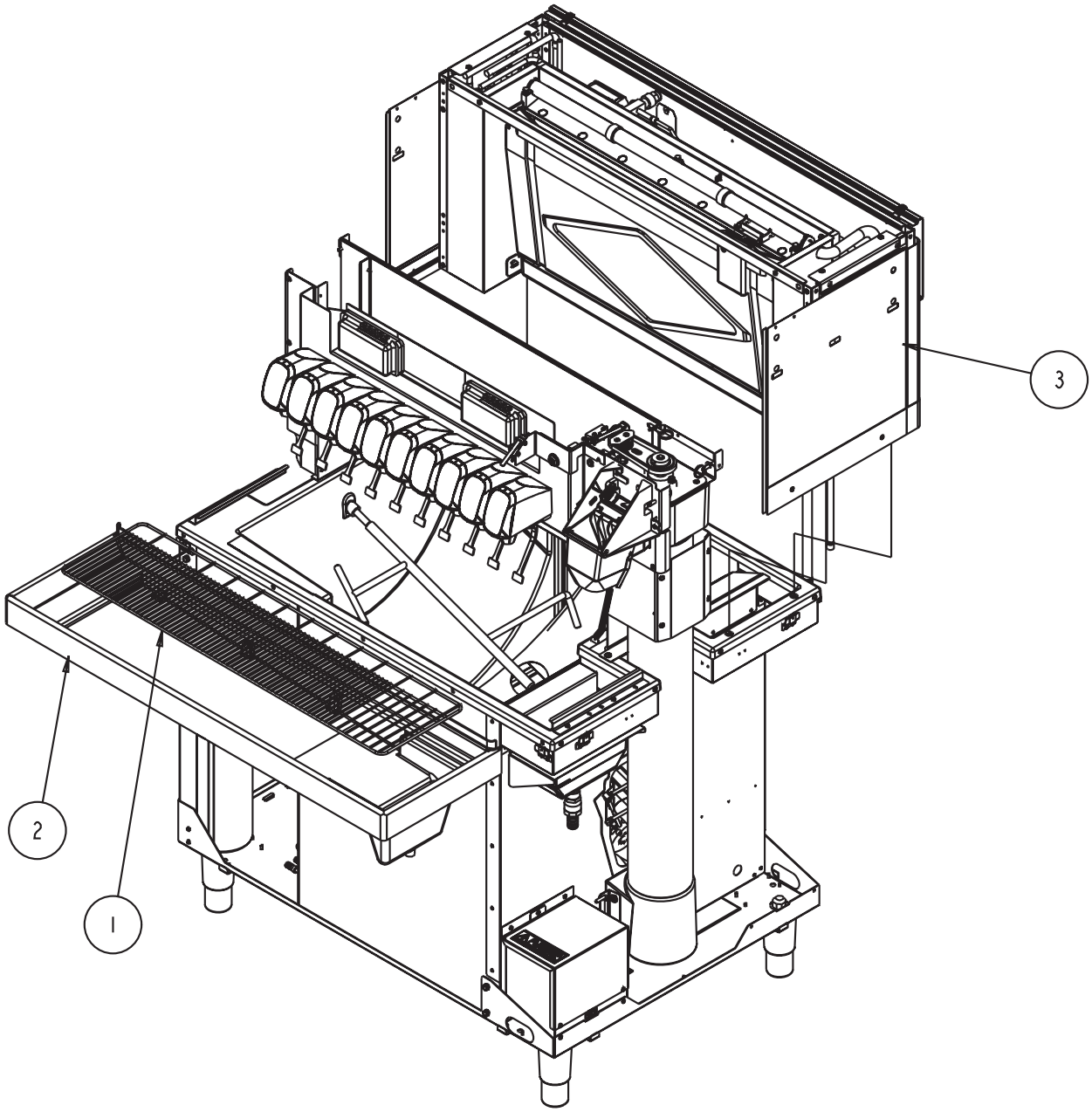
COVERS & PANELS



NO	Part#	Description
1	5029883	CABINET GALV
2	020000214	RH COVER ASSM
3	020000215	LH COVER ASSM
4	020000216	LID ASSM

EXPLODED VIEWS, PARTS & DIAGRAMS

SPLASH PANEL, DRAINPAN & CUBER

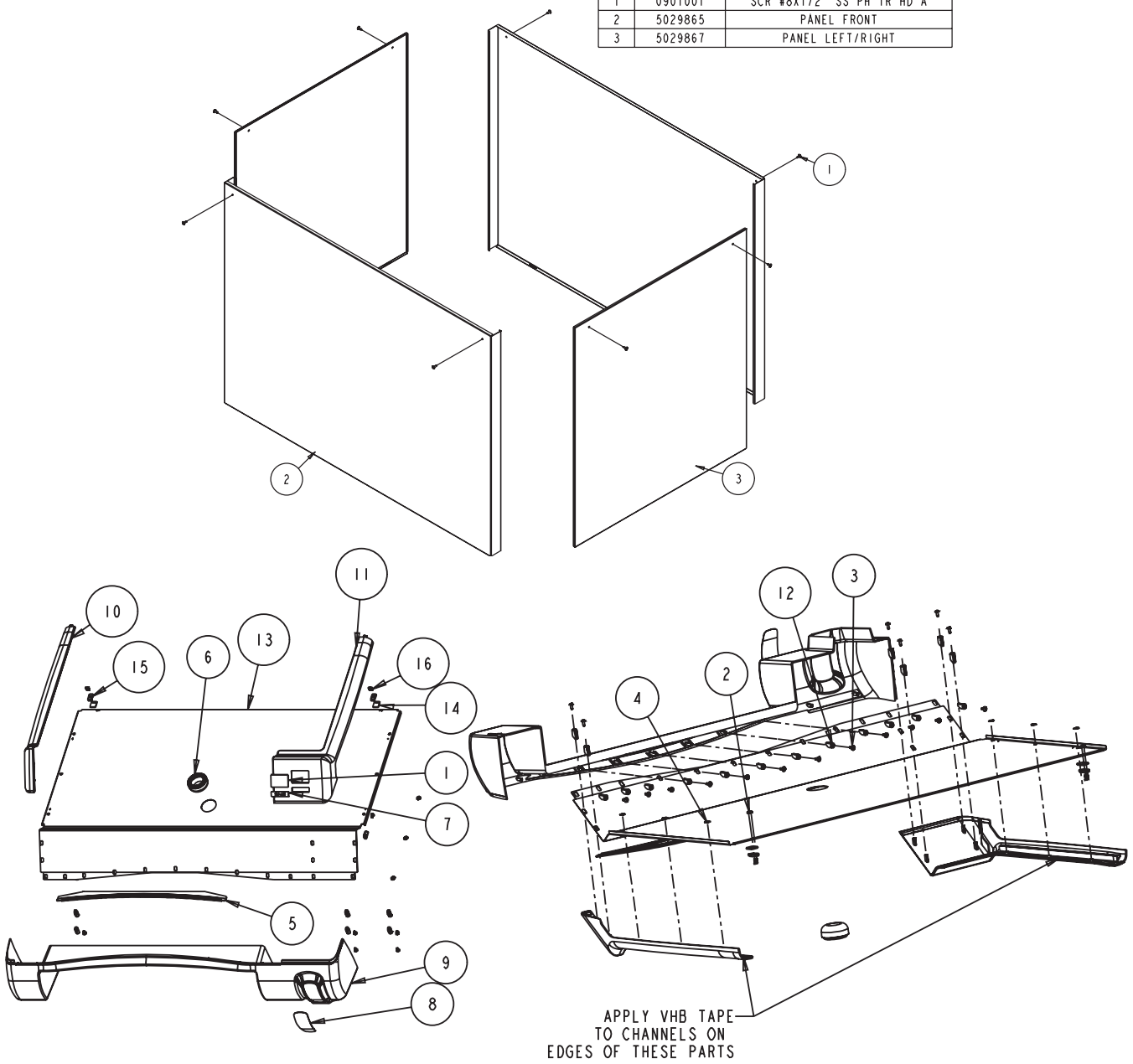


No.	Part Number	Description
1	5012090	GRID
2	5012238	DRAINPAN RH
3	5012311	CUBER 120V

EXPLODED VIEWS, PARTS & DIAGRAMS

PANELS & LID BONNET

No.	Part Number	Description
1	0901001	SCR #8X1/2" SS PH TR HD A
2	5029865	PANEL FRONT
3	5029867	PANEL LEFT/RIGHT

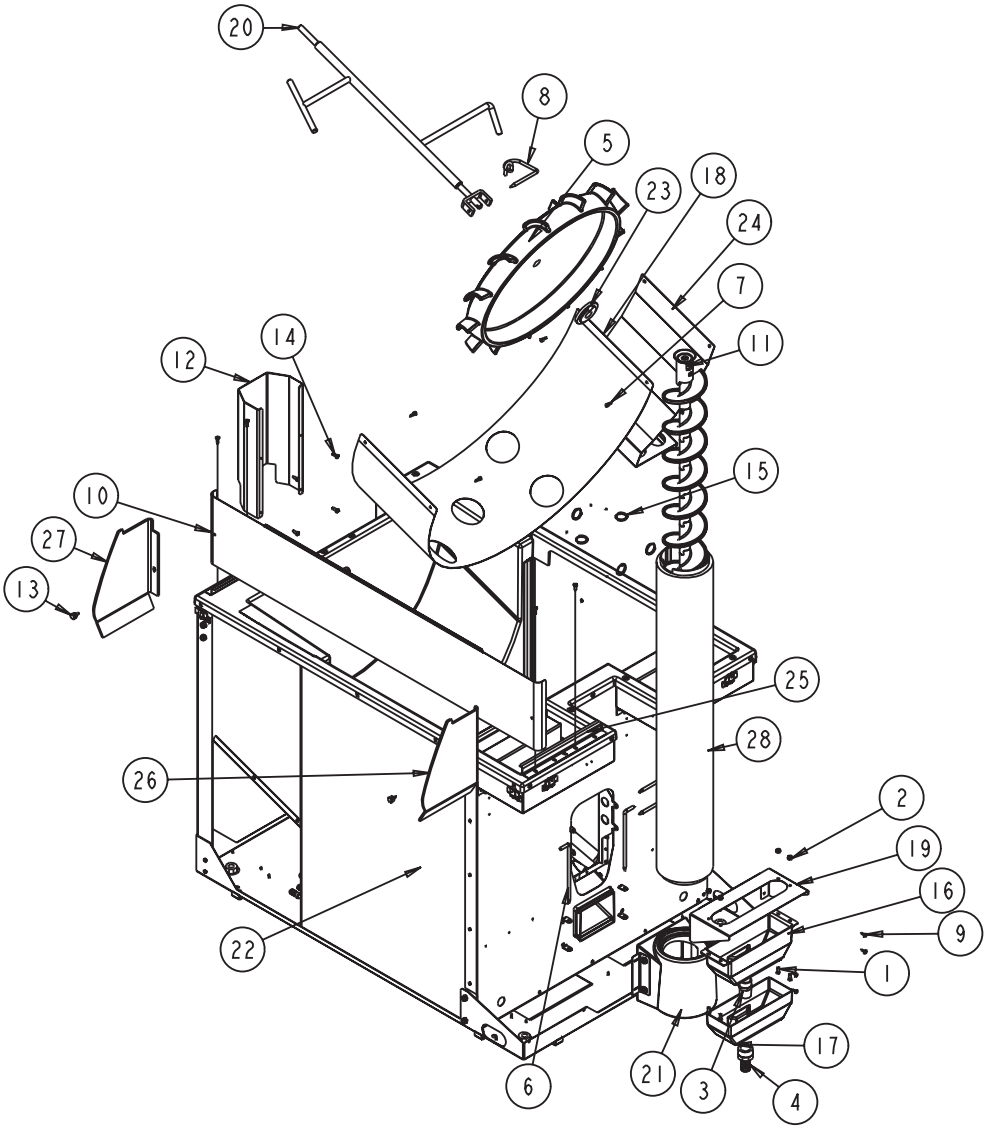


NO	Part Number	Description
1	000000246	LABEL LOGO SNOWFLAKE
2	00850809	NUT # 4-40 HEX BRASS
3	0901001	SCR #8X1/2" SS PH TR HD
4	5000888	CLIP PUSH ON
5	5031260	LENS
6	5031525	GROMMET FINGER
7	5031550	LABEL LOGO SERVEND
8	5031590	LABEL ICE

NO	Part Number	Description
9	020000141	COVER FRONT
10	020000144	TRIM, TOWER
11	020000145	TRIM, TOWER LOGO
12	020000207	BSHG BONNET ANGLED
13	020000213	LID, SS TOWER RH
14	020001321	SPACER, LATCH
15	020001323	LATCH PLAS
16	020001328	SCR 4-40 X 1/2

EXPLODED VIEWS, PARTS & DIAGRAMS

AUGER, AGITATION & DRAIN

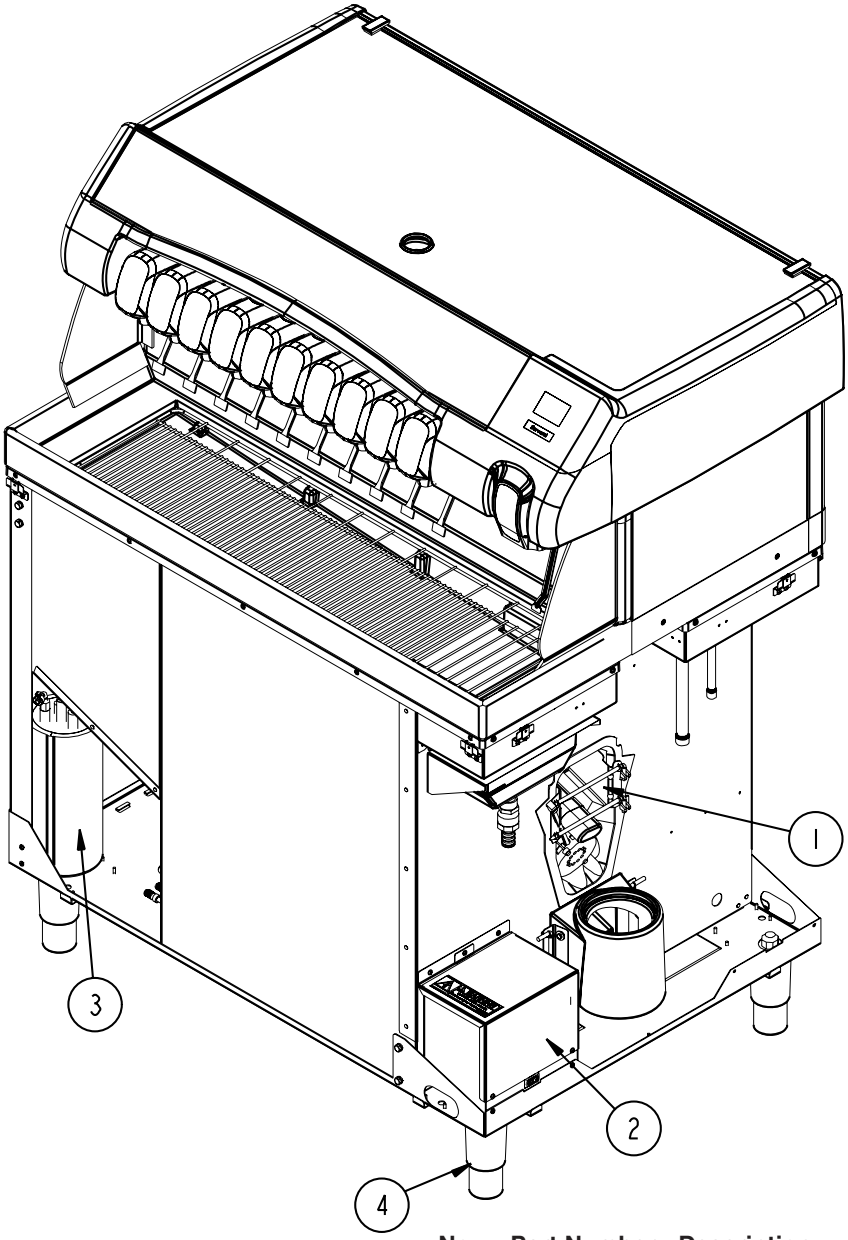


No.	Part Number	Description
1	0901301	SCR 10-32 X 1/2 HEX MACH
2	0902316	NUT 10-32 ESNA ZINC
3	1200101	ADAPTER 3/4" MALE CPVC
4	1200121	FITTING 3/4" FEMALE BURB
5	2601415	PADDLEWHEEL "REF. DWG. 7060001"
6	4140023	PIN RETAINING
7	5000711	SCR 8-32 X 1/2" KNURL UNSLOT
8	5010452	PIN U-BAR AGITATOR
9	5011940	SCREW 8-32 X 1/2
10	5012013	PANEL SPLASH
11	5012321	AUGER
12	5012557	BRKT SYRUP LINE RETAINING
13	5012790	SCR 10-32X1/2 KNURL UNSLT
14	5012794	SCR 10-32 X 1/2 HEX MACH

No.	Part Number	Description
15	5012800	PIN 1/4" DIA X .6 SHOULDER
16	5012819	DRAIN
17	5013840	INSUL DRAINPAN
18	5028888	LINER BIN
19	5029458	BRKT DRAINPAN DRAIN
20	5029807	AGITATOR
21	5029875	AUGER TRANSITION
22	5029878	BIN
23	5030576	BUSHING PADDLE WHEEL
24	5030776	BRACKET SUPPORT BIN LINER
25	5031060	SUPPORT DRAINPAN
26	5031461	GUARD RH SPLASH
27	5031462	GUARD LH SPLASH
28	5031508	TUBE AUGER INSULATED

EXPLODED VIEWS, PARTS & DIAGRAMS

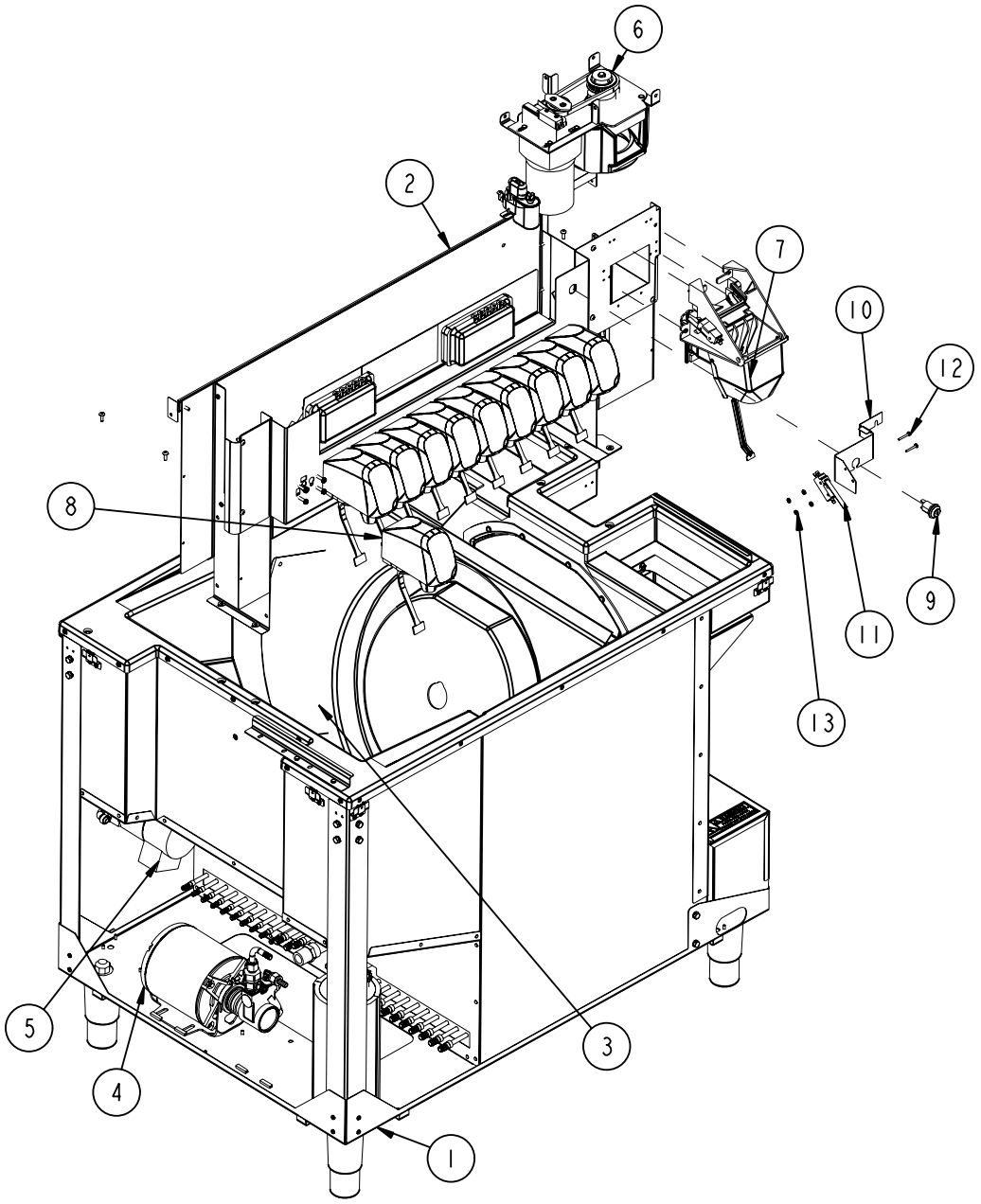
LEGS, CARB TANK & ELECTRIC BOX



No	Part Number	Description
1	5029874	MNT MOTOR 120V
2	5029876	ELEC 120/60
3	5029887	TANK CARB
4	5030236	LEG

EXPLODED VIEWS, PARTS & DIAGRAMS

AUGER DRIVE, VALVE MOUNT, ROCKING CHUTE, PUMP

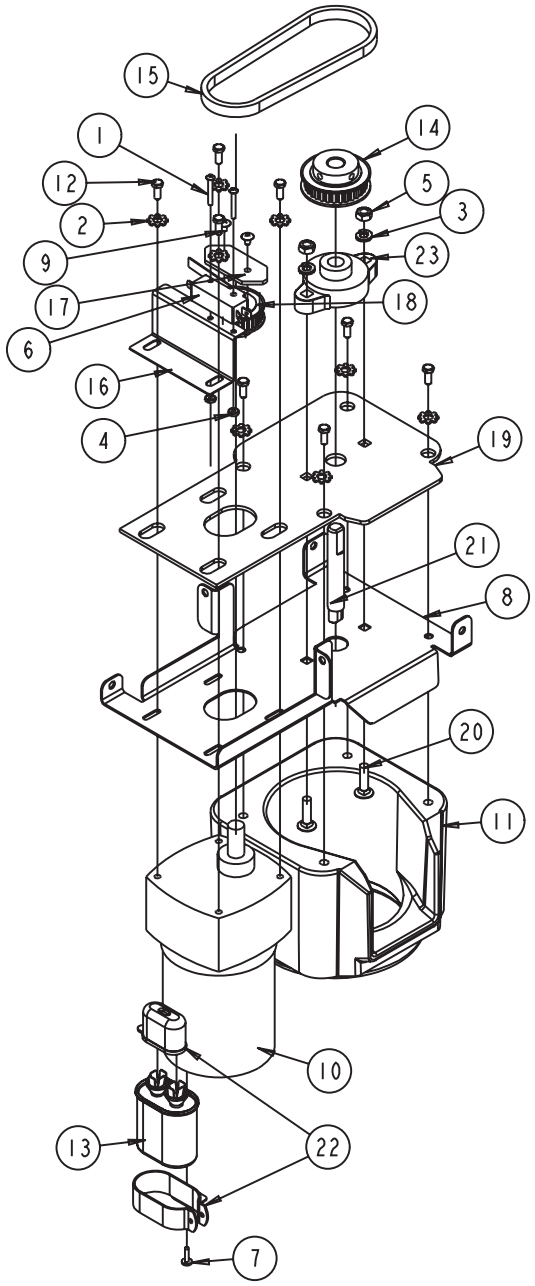


NO.	Part Number	Description
1	5029884	BOM BASE
2	5029872	CAP VLV MNT RH
3	5028889	AREA RH PADDLEWHEEL
4	5029888	PUMP CARB 120V
5	5014007	PUMP RECIRC 120V
6	5012308	AUGER DRIVE 120V
7	5012326	CHUTE ROCKING

NO.	Part Number	Description
8	5012615	VLV FLO 464HF SL GP COVER
9	5000220	KEYSWITCH
10	020001299	BRKT SAFETY SWITCH
11	100703	MICROSWITCH
12	0900901	SCR 6-32 X 1" SS PH RHMS
13	0902101	NUT 6-32 HEX SS

EXPLODED VIEWS, PARTS & DIAGRAMS

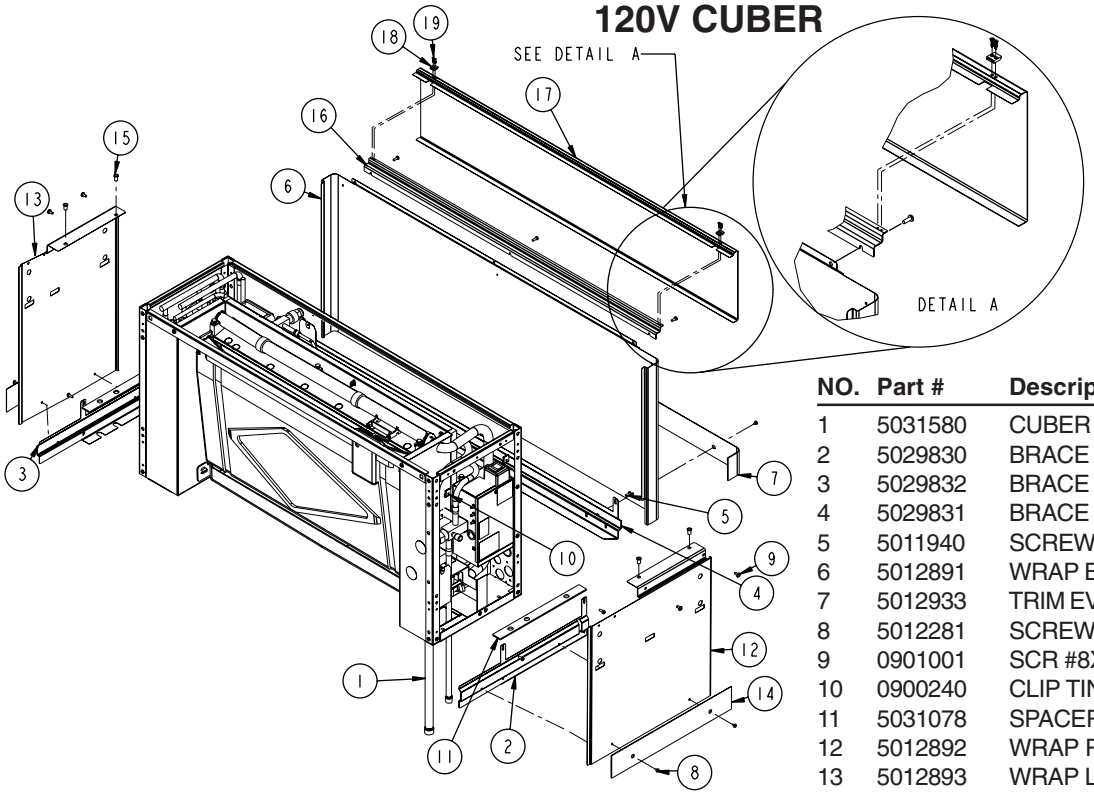
120V AUGER DRIVE



No.	Part Number	Description
1	0900901	SCR 6-32 X 1" SS PH RHMS
2	0901901	WASHER LOCK #10 STAR EXT
3	0901904	1/4 LOCK WASHER
4	0902101	NUT 6-32 HEX SS
5	0902105	NUT 1/4"-20 SS HEX
6	1000703	MICROSWITCH
7	5011936	SCR 8-32 X 1/2 GRND ZINC
8	5012027	BRKT AUGER MOTOR
9	5012081	SCREW 8-32 X 1/4" PH PS
10	5012094	MOTOR AUGER
11	5012239	CHUTE AUGER ICE
12	5012794	SCR 10-32 X 1/2 HEX MACH
13	5012796	CAPAC 370VAC 5MFD RUN
14	5012798	PULLEY AUGER 30 TOOTH
15	5012799	BELT PULLEY
16	5013590	BRACKET REVERSE SWITCH
17	5013591	CAM REVERSE ACTUATOR
18	5013616	PULLEY DRILLED & TAPPED
19	5013706	INSUL TOP TRANSITION
20	5013793	BOLT 1/4"-20 X 1" CARRIAGE
21	5031044	ROD TOP AUGER
22	5031679	KIT CAPACITOR MOUNTING
23	5031725	BEARING BALL 1/2 IN BORE

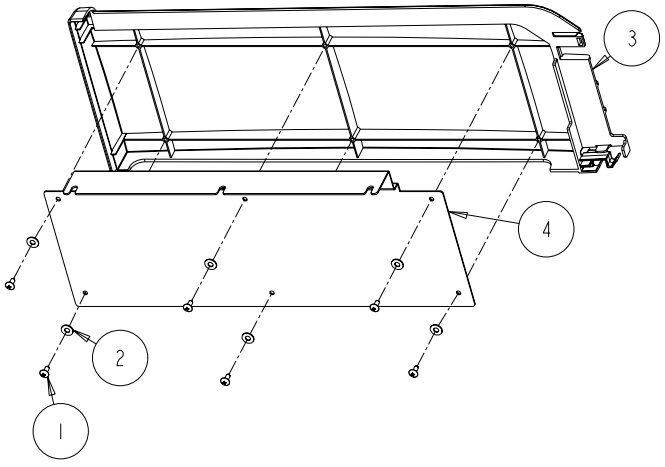
EXPLODED VIEWS, PARTS & DIAGRAMS

120V CUBER



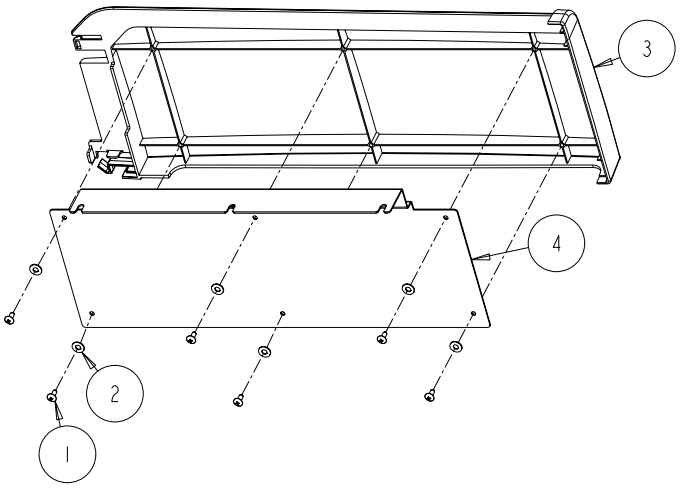
NO.	Part #	Description
1	5031580	CUBER BRAZED EXT
2	5029830	BRACE RT SIDE PANEL
3	5029832	BRACE LFT SIDE PANEL
4	5029831	BRACE BACK PANEL
5	5011940	SCREW 8-32 X 1/2
6	5012891	WRAP BACK
7	5012933	TRIM EVAPORATOR WRAP BACK1
8	5012281	SCREW 8-32 X 1/4 ES FORM 7
9	0901001	SCR #8X1/2" SS PH TR HD A4
10	0900240	CLIP TINN C191728Z4
11	5031078	SPACER ICEMAKER
12	5012892	WRAP RIGHT
13	5012893	WRAP LEFT
14	5012934	TRIM EVAPORATOR WRAP SIDE2
15	5029806	RIVNUT 10-32
16	020001298	BRKT REAR PANEL SUP
17	020000226	WRAP BACK
18	020001323	Latch Plas
19	020001322	SCREW #4 X 1/2 SELF TAP 4

RIGHT SIDE BONNET COVER



NO	Part #	Description
1	0901001	SCR #8X1/2" SS PH TR HD A
2	0901803	WASHER FLAT #10 ZINC
3	020000142	CAP TOWER END
4	020000212	SUPPORT BONNET SIDE

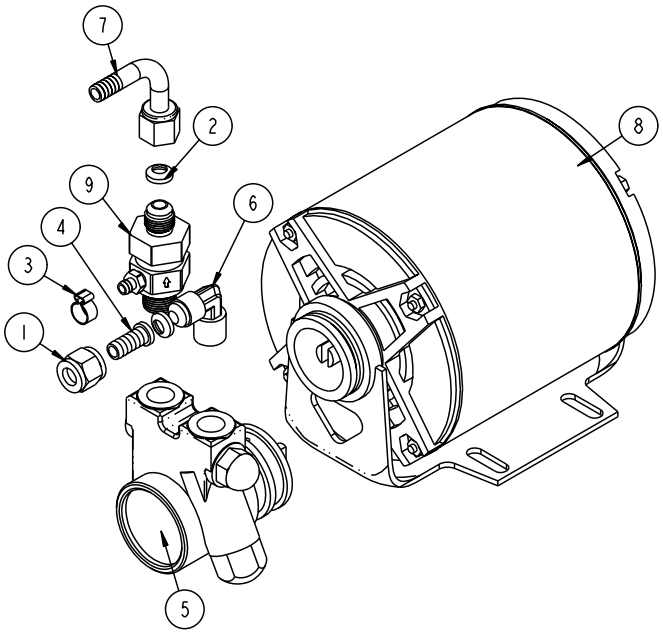
LEFT SIDE BONNET COVER



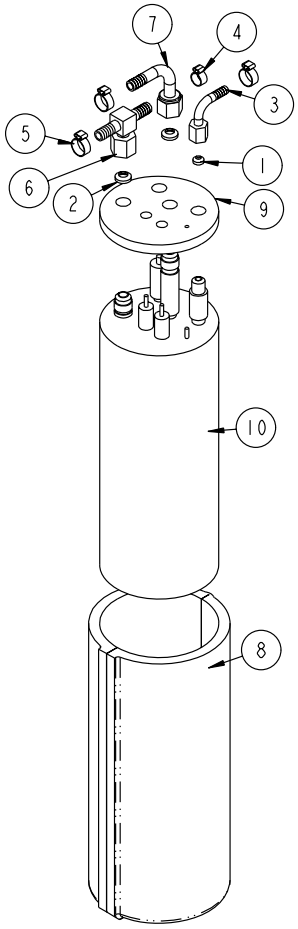
NO	Part #	Description
1	0901001	SCR #8X1/2" SS PH TR HD A
2	0901803	WASHER FLAT #10 ZINC
3	020000143	CAP TOWER END
4	020000212	SUPPORT BONNET SIDE

EXPLODED VIEWS, PARTS & DIAGRAMS

120V CARB PUMP & TANK ASSEMBLY



No.	Part Number	Description
1	1701110	NUT 3/8"X9/16" SWIVEL FITTING
2	1701115	Washer 3/8" Black Nylon
3	1701301	CLAMP OTR 1/2" 13.3-706R
4	5009025	FITTING SWIVEL 3/8" BARB
5	5009613	PUMP HEAD CARB 125 GPH
6	5009983	FITTING 3/8X3/8 NPT ELBOW
7	5010781	FITTING 3/8 BARB SW/ELBOW
8	5028931	MOTOR CARB PUMP 115V
9	5031042	VALVE CHK VENTED 3/8" NPT X 3/8" FLARE
10	5030533	TUBE CARB TANK PURGE

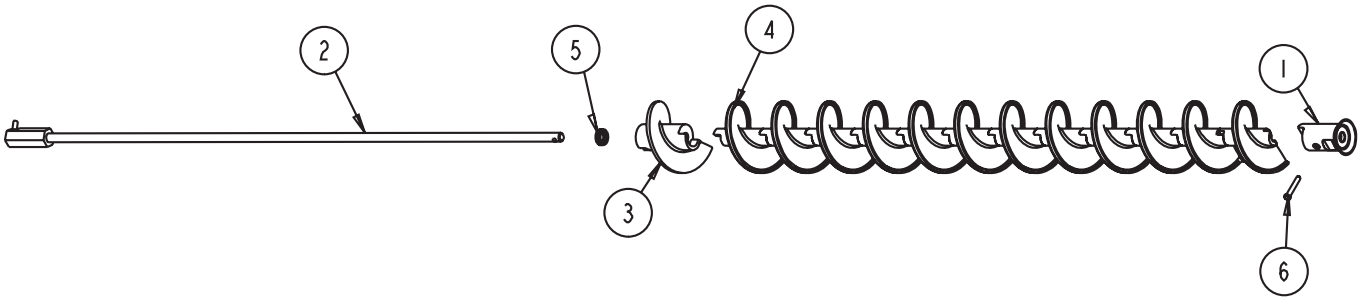


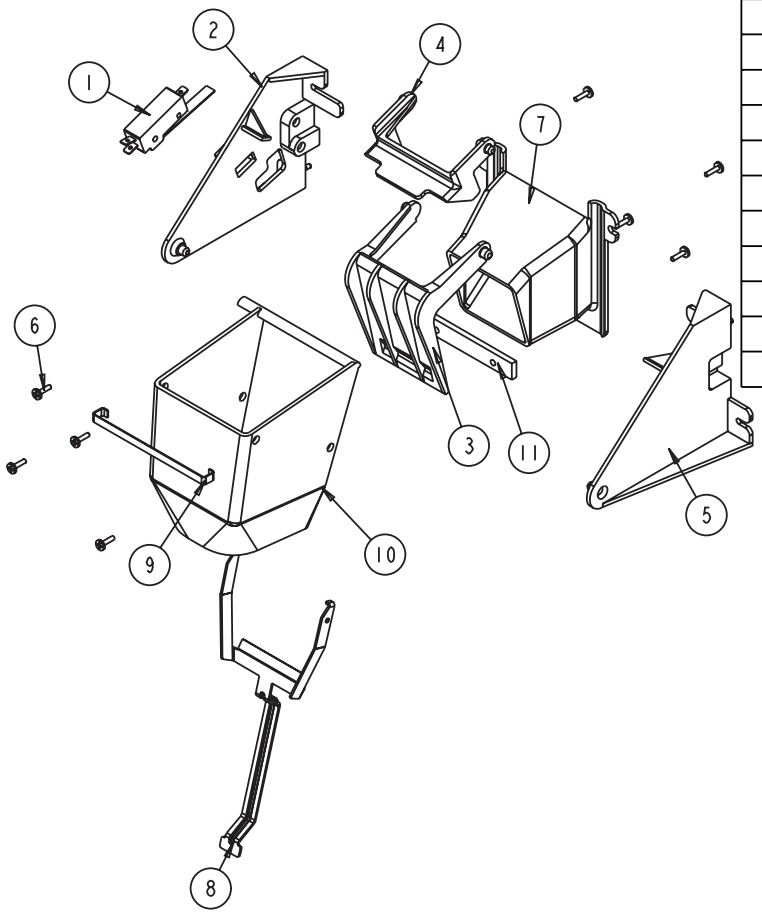
No.	Part Number	Description
1	1701113	Washer 1/4" White Nylon
2	1701115	Washer 3/8" Black Nylon
3	1701150	Nut 1/4 x 3/8 90 Degree Swivel w/Elbow
4	1701301	CLAMP OTR 1/2" 13.3-706R
5	5000395	CLAMP OTR 39/64"15.7-706R
6	5010143	FITTING SWVL 3/8 BARB TEE
7	5010781	FITTING 3/8 BARB SW/ELBOW
8	5011894	INSUL CARB TANK WRAP
9	5011895	INSUL CARB TANK TOP
10	5030321	TANK CARB VERT W/ TUBE

EXPLODED VIEWS, PARTS & DIAGRAMS

AUGER & ROCKING CHUTE

No.	Part Number	Description
1	5031043	COUPLING AUGER TOP
2	5031045	ROD AUGER
3	5031190	FLIGHT BOTTOM AUGER, ACETAL
4	5031191	FLIGHT AUGER, ACETAL
5	5031217	SHIM AUGER
6	37-1208-3	PIN COTTERLESS CLEVIS

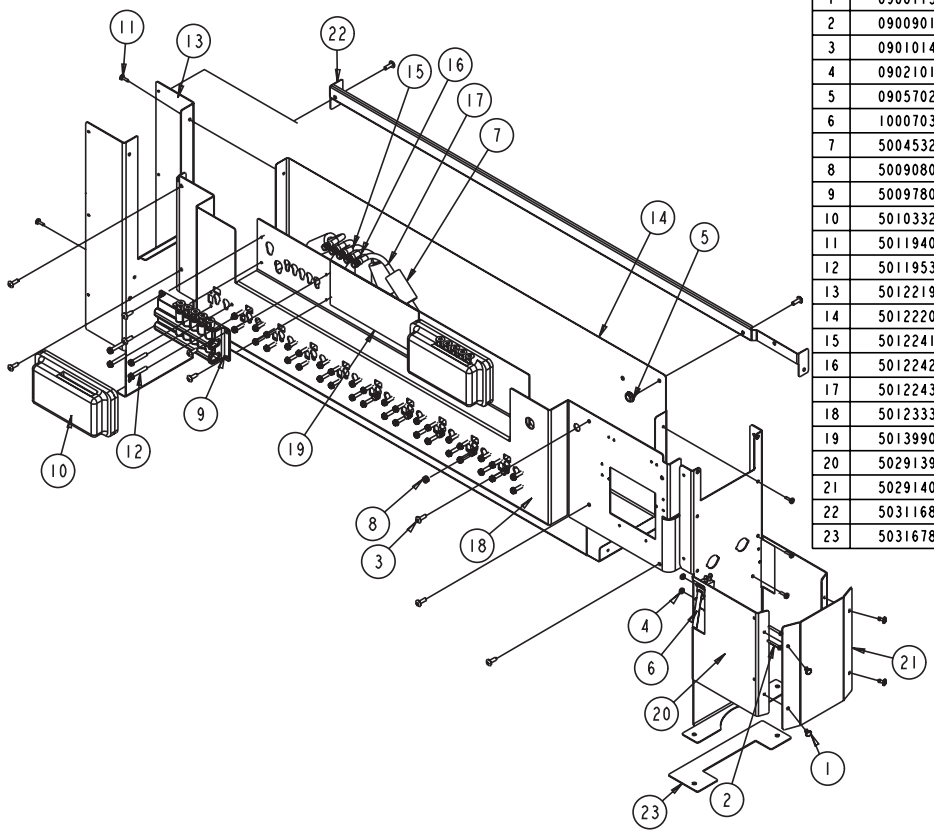




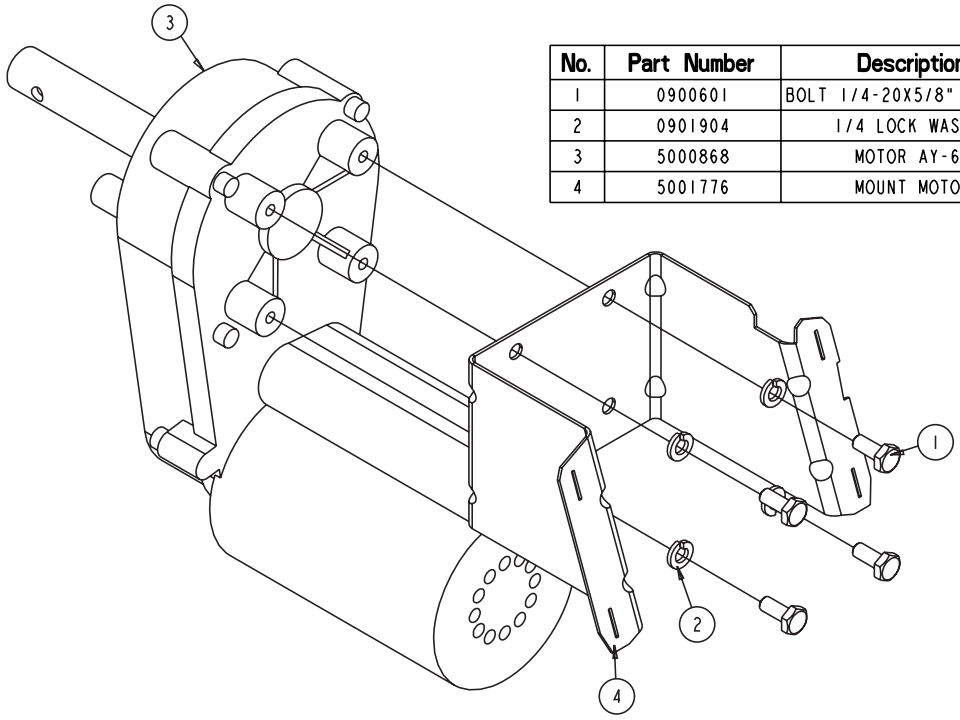
No.	Part Number	Description
1	1000703	MICROSWITCH
2	5002507	MOUNT ROCKING CHUTE DOOR LEFT
3	5002508	DOOR ROCKING CHUTE
4	5002509	LOCK ROCKING CHUTE DOOR
5	5002657	MOUNT ROCKING CHUTE DOOR RIGHT
6	5011940	SCREW 8-32 X 1/2
7	5012235	CHUTE VACUUM FORMED
8	5014082	LEVER RC BLK SANI OPA
9	5031384	BRACKET ROCKING CHUTE OUTER
10	5031559	CHUTE DRILLED ROCKING
11	5031633	SHIM ICE CHUTE

EXPLODED VIEWS, PARTS & DIAGRAMS

VALVE MOUNT CAP & AGITATOR MOTOR



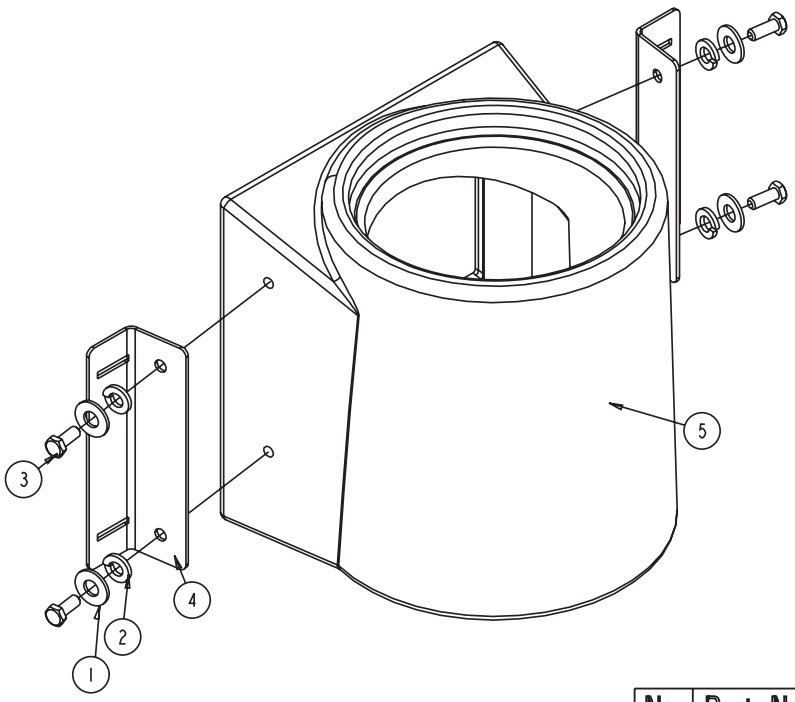
No.	Part Number	Description
1	0900113	POP RVT #44 LG FL SS
2	0900901	SCR 6-32 X 1" SS PH RHMS
3	0901014	10-32 x 5/8 screw
4	0902101	NUT 6-32 HEX SS
5	0905702	GROMMET 3/8" VINYL
6	1000703	MICROSWITCH
7	5004532	INSUL 1/4 X 3/8 PIPE RUBATX
8	5009080	010 O-RING .239 ID X .070 W
9	5009780	5 PORT MANIFOLD ASSEMBLY
10	5010332	INSUL MANIFOLD INT CARB
11	5011940	SCREW 8-32 X 1/2
12	5011953	SCR 10-24X1-1/4 SELF TAP
13	5012219	BRACKET VALVE MOUNT CAP/SYRUP
14	5012220	ENCLOSURE NSF
15	5012241	LINE MANIFOLD WTR SHORT
16	5012242	LINE MANIFOLD WTR MIDDLE
17	5012243	LINE MANIFOLD WTR LONG
18	5012333	CAP VLV MNT 10V OFFSET
19	5013990	LABEL MANIFOLD 10 VALVE
20	5029139	BRKT VLV MNT CAP
21	5029140	BRACE SPLASH PANEL
22	5031168	SUPPORT ICE MAKER
23	5031678	SHIM TOWER



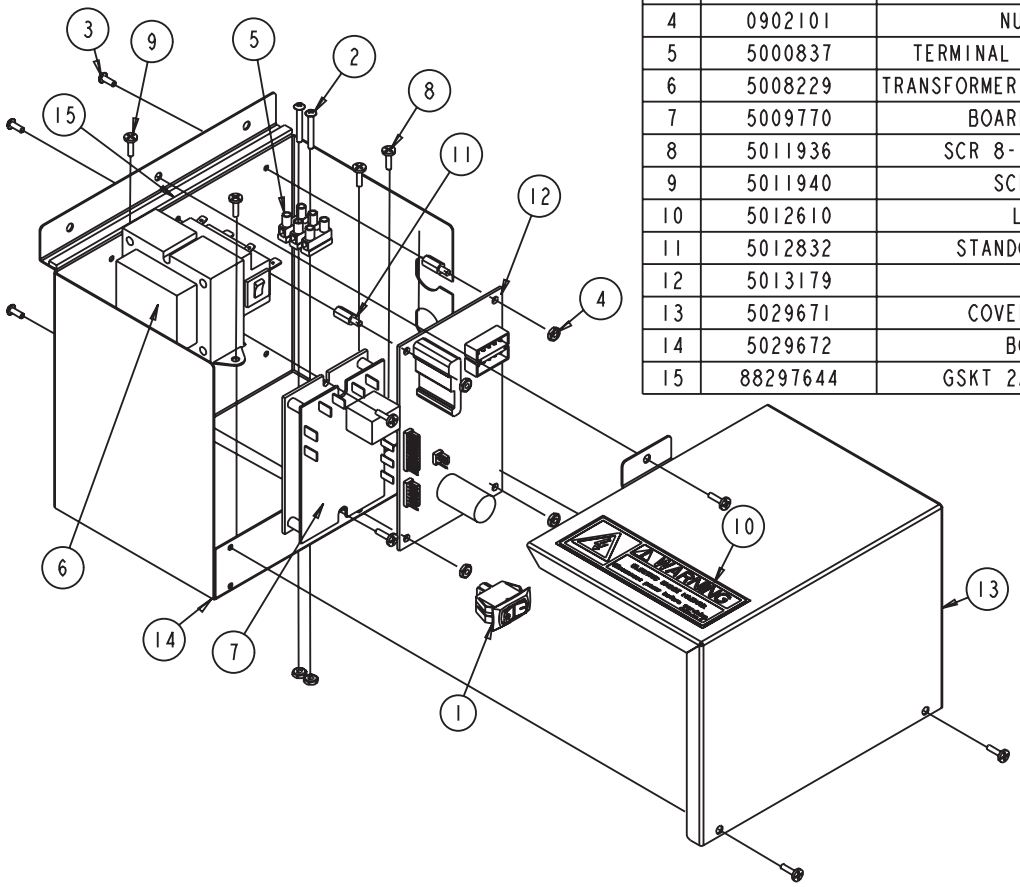
No.	Part Number	Description
1	0900601	BOLT 1/4-20X5/8" SS HHCS
2	0901904	1/4 LOCK WASHER
3	5000868	MOTOR AY-62
4	5001776	MOUNT MOTOR

EXPLODED VIEWS, PARTS & DIAGRAMS

AUGER TRANSITION & 120V ELECTRIC BOX



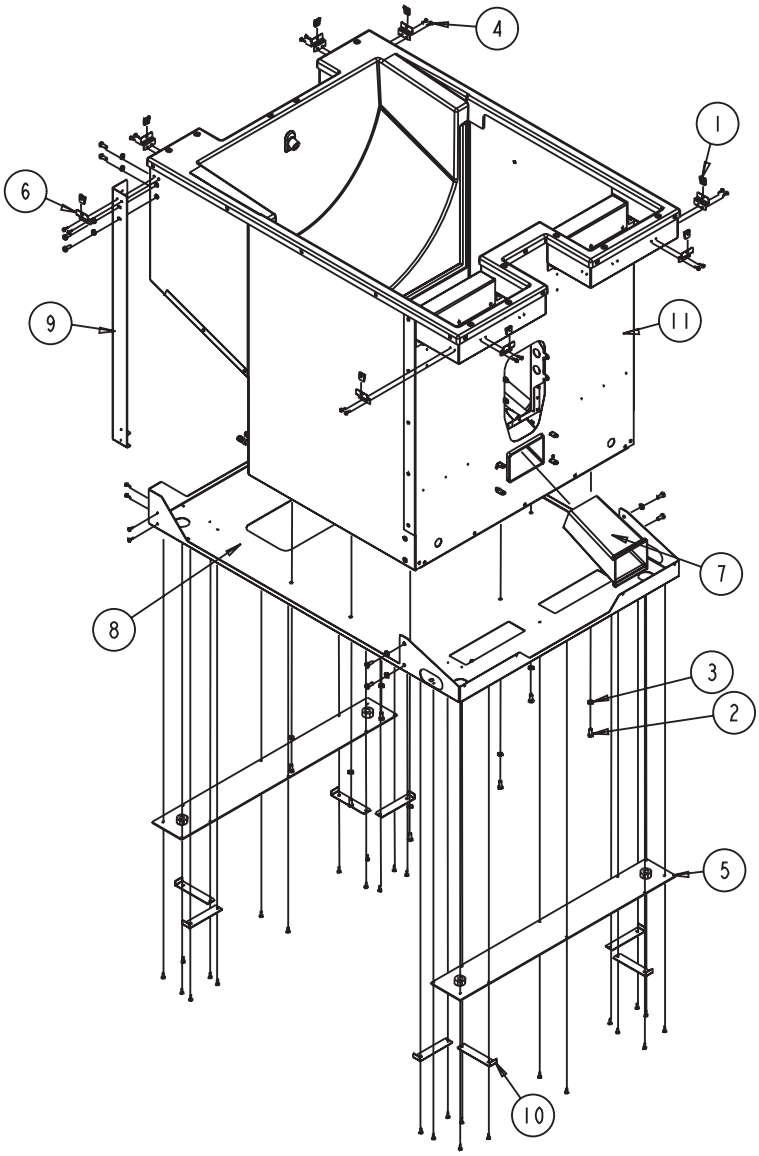
No.	Part Number	Description
1	0901805	WASHER 1/4" FLAT SS
2	0901904	1/4 LOCK WASHER
3	5012794	SCR 10-32 X 1/2 HEX MACH
4	5028942	BRKT TRANSITION
5	5028986	TRANSITION AUGER BOTTOM



No.	Part Number	Description
1	00804437	SWITCH SPST 16A 3/4HP
2	0900901	SCR 6-32 X 1" SS PH RHMS
3	0900904	SCREW 6-32X3/8" SS PH RHMS
4	0902101	NUT 6-32 HEX SS
5	5000837	TERMINAL BLOCK EUROPEAN STYLE
6	5008229	TRANSFORMER 75VA 120V WITH BREAKER
7	5009770	BOARD LL CTRL 120/60
8	5011936	SCR 8-32 X 1/2 GRND ZINC
9	5011940	SCREW 8-32 X 1/2
10	5012610	LABEL WARNING
11	5012832	STANDOFF CIRCUIT BOARD
12	5013179	BOARD CTRL
13	5029671	COVER ELECTRICAL BOX
14	5029672	BOX ELECTRICAL
15	88297644	GSKT 2A WHT 1/8X1/4"X50'

EXPLODED VIEWS, PARTS & DIAGRAMS

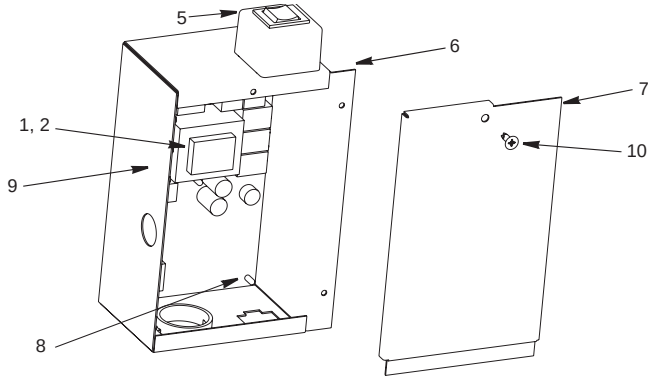
BIN



No.	Part Number	Description
1	0900240	CLIP TINN C19172BZ4
2	0900601	BOLT 1/4-20X5/8" SS HHCS
3	0901904	1/4 LOCK WASHER
4	5011940	SCREW 8-32 X 1/2
5	5012214	PLATE LEG
6	5013991	BRKT PANEL
7	5028985	CHUTE BTTM ICE
8	5029219	BASE PLATE
9	5029293	BRACKET VERTICAL SUPPORT
10	5029869	HOOK BTTM PANEL
11	5029873	BIN ICE STORAGE

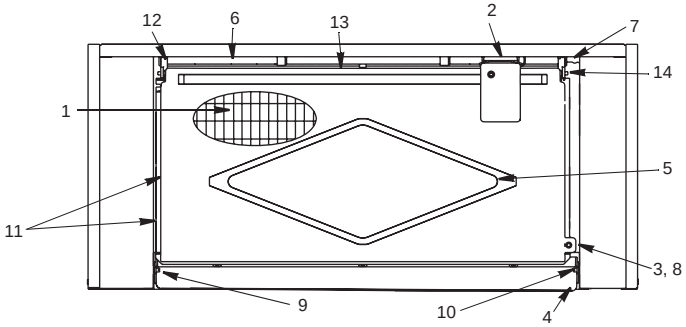
MANITOWOC® SU1024YC ICEMAKER

CONTROL BOX & EVAPORATOR COMPARTMENT



SV3000

	DESCRIPTION	PART NUMBER
1	Control Board (for use with all voltages)	76-2782-3
2	7 amp Fuse Mounted on Control Board	25-1100-3
3	Wiring Harness Control Box (Not shown)	
	a. 115V/60 Hz/1 ph	20-0077-3
	b. 208-230V/60 Hz/1 ph.	20-0077-3
	c. 230V/50 Hz/1 ph	20-0077-3
4	Wiring Harness From Control Box (Not shown)	
	a. 115V/60 Hz/1 ph	20-0112-3
	b. 208-230V/60 Hz/1 ph.	20-0112-3
	c. 230V/50 Hz/1 ph	20-0112-3
5	Toggle Switch (Only)	23-0134-3
	a. Toggle Switch With Wiring Harness Attached	20-0113-3
	b. Mounting Box.	40-0056-3
	Miscellaneous Screws, Supports, etc.	
6	Control Box	604739-1
7	Control Box Cover	76-0116-3
8	Control Board Mounting Supports	43-0225-3
9	Screw, #10-24 x .50 Ground	52-0216-9
10	Screw, 10 x 24 x .50 Phillips	52-0209-9



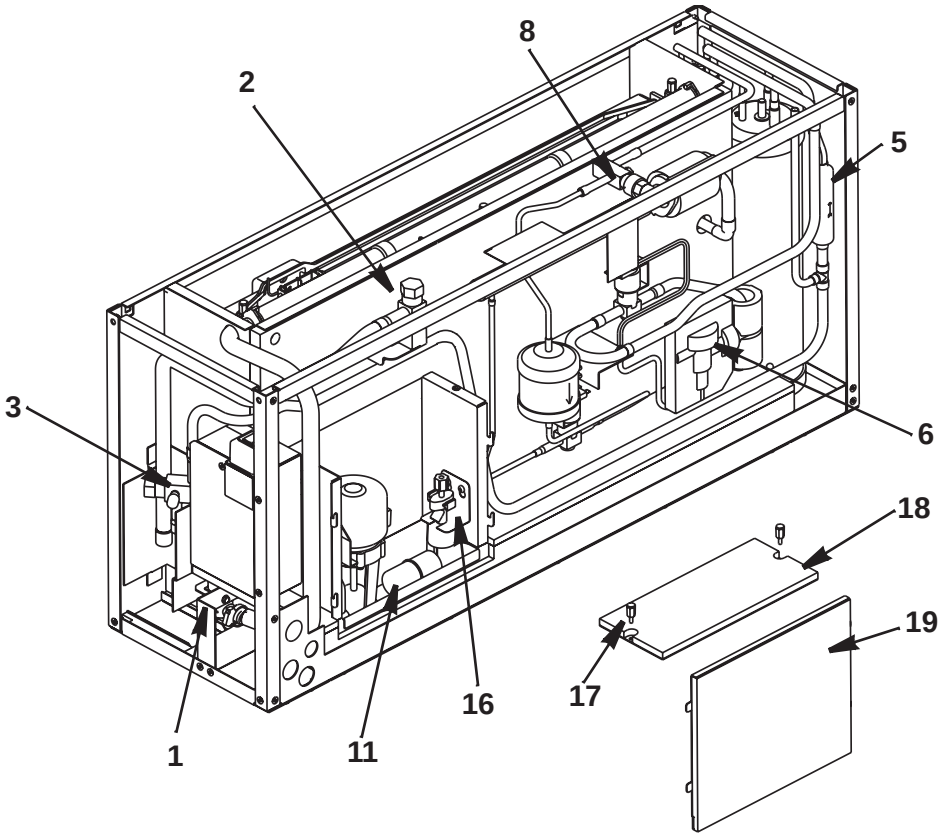
PT370

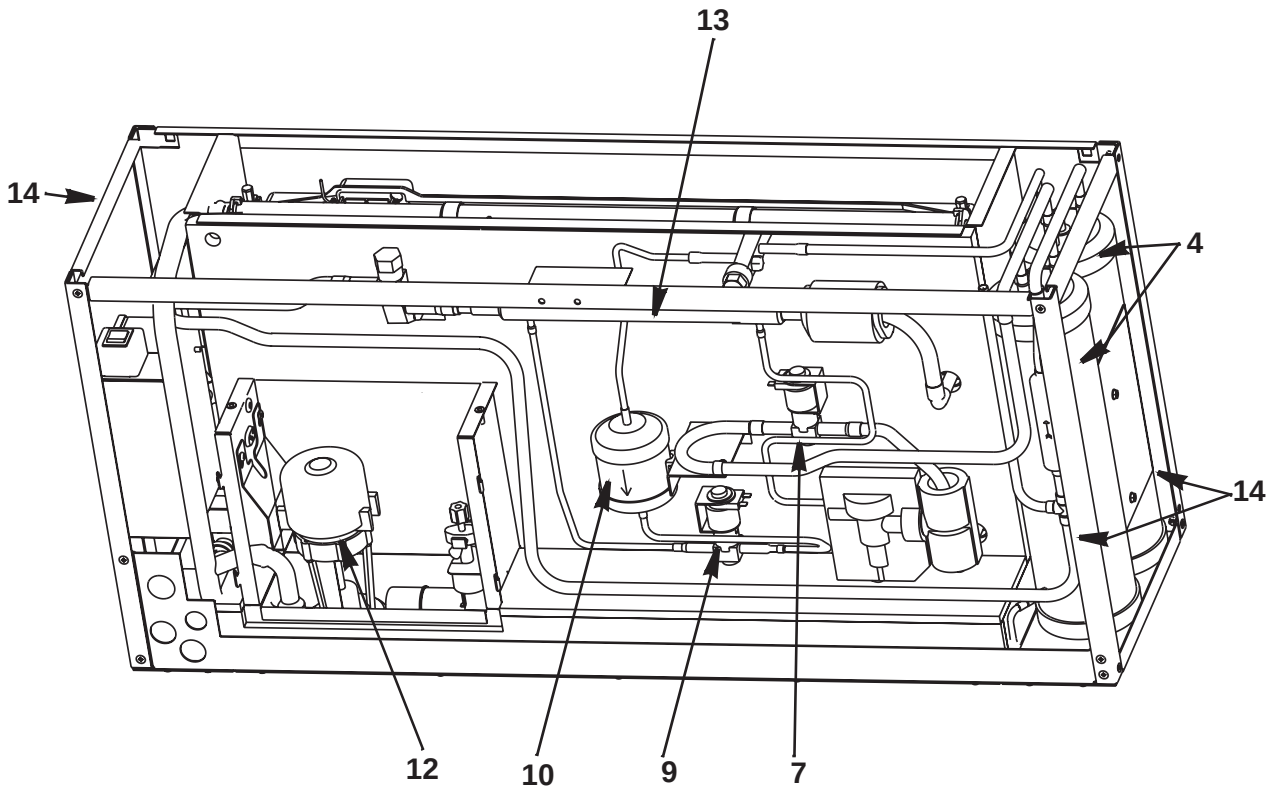
	DESCRIPTION	PART NUMBER
1	Evaporator Assembly Half Dice Cube	76-0096-3
2	Ice Thickness Control Probe	76-2781-3
3	Magnetic Bin Switch (Mounted to Evaporator)	23-0148-3
4	Water Trough	40-0468-3
5	Water Curtain	40-0944-3
6	Water Distribution Tube	43-0322-3
7	Vinyl Tubing Water Distribution Tube to Water Pump	40-0412-3
	Miscellaneous Brackets, Screws, etc.	
8	Water Curtain Magnet With Attachment Clip	76-2802-3
9	Quarter Turn Fastener Male (Water Trough and Water Pump Mounting)	50-0045-3
10	Quarter Turn Fastener Receptacle Female (Water Trough and Water Pump Mounting)	56-5085-3
11	Screw 10 x 24 x .75 with washer Evaporator Mounting	52-0218-9
12	Screw, #8-32 x .63 Water Distribution Tube Mounting	50-0001-3
13	Evaporator Top Molding and Gasket Assembly	76-2801-3
14	Water Curtain Pin Assembly	76-2856-3

Refer to Cross Reference Guide

MANITOWOC® SU1024YC ICEMAKER

REFRIGERATION COMPARTMENT





MANITOWOC® SU1024YC ICEMAKER

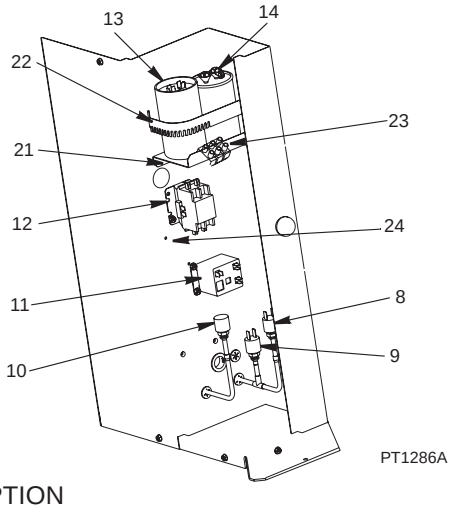
REFRIGERATION COMPARTMENT

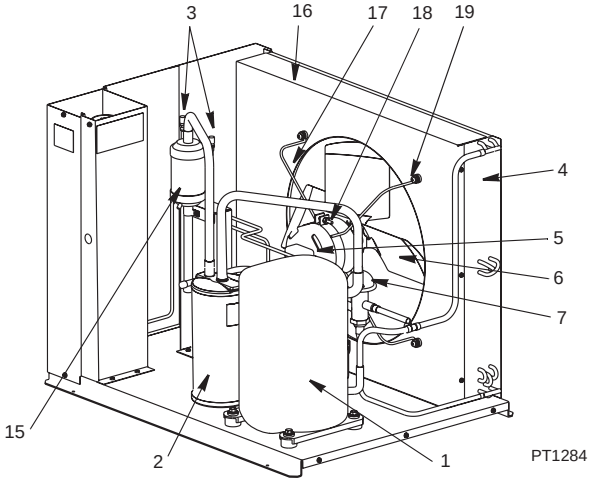
	DESCRIPTION	PART NUMBER
1	Water Dump Valve	
	a. Dump Valve Assembly without Electrical Coil	24-0520-3
	b. 115V/60 Hz Coil Only	24-0521-3
	c. 208/230V 50/60 Hz Coil Only	24-0522-3
	d. Dump Valve Rebuild Kit	24-0501-3
2	Manual Shut-off Valve Suction Line	83-7301-3
	a. Valve Cap	83-7327-3
3	Manual Shut-off Valve Liquid Line	83-7300-3
	a. Valve Cap	83-7302-3
4	Receiver	82-5058-3
	a. Equalizer Tube (Connects The Receivers)	30-0154-3
5	Check Valve	83-7315-9
6	Expansion Valve	76-0022-3
	a. Expansion Valve Body Insulation Boot	76-0080-3
	b. Expansion Valve Bulb Insulation Boot	40-0092-3
7	Cool Vapor Valve	
	a. Solenoid Valve Including 115V/60 Hz Electrical Coil (Danfoss)	76-3005-1
	b. 115V/60 Hz Electrical Coil only Danfoss	20-0176-3
	c. 115V/60 Hz Electrical Coil only Alco	24-0436-3
	d. Solenoid Valve Including 208/230V 50/60 Hz Electrical Coil (Danfoss)	76-3011-1
	e. 208/230V 50/60 Hz Electrical Coil Only Danfoss	20-0177-3
	f. 208/230V 50/60 Hz Electrical Coil Only Alco	24-0448-3
8	Receiver Service Valve	83-7316-9
	a. Valve Cap	56-5075-3
9	Liquid Line Solenoid Valve	
	a. Liquid Line Solenoid Valve Including 115V/60 Hz Coil (Danfoss)	76-3001-1
	b. 115V/60 Hz Coil Only Danfoss	20-0176-3
	c. 115V/60 Hz Coil Only Alco	24-0436-3
	d. Liquid Line Solenoid Valve Including 208/230V 50/60 Hz Electrical Coil (Danfoss)	76-3007-1
	e. 208/230V 50/60 Hz Coil Only Danfoss	20-0177-3
	f. 208/230V 50/60 Hz Coil Only Alco	24-0448-3
10	Liquid Line Drier	89-3027-3
11	Float Valve	83-6904-9
	a. Compression Nut	56-5072-9
12	Water Pump	
	a. 115V/60 Hz	76-2552-3
	b. 220V/50 Hz/1 ph	14-8027-9
	c. Water Pump Electrical Lead	20-7810-3
13	Heat Exchanger	82-5061-3
Miscellaneous	Brackets, Screws, etc.	
14	Side Frame	604721-1
15	Clamp, Expansion Valve Bulb (Not shown)	30-0081-3
	a. Copper Expansion Valve Bulb Clamp	30-0050-3
16	Float Valve Bracket	604728-1
17	Thumbscrew	53-0512-3
18	Pump Chimney Cover	76-0117-3
19	Pump Chimney Back Panel	76-0118-3

Refer to Cross Reference Guide

MANITOWOC® SU1024YC ICEMAKER

CVD1075 CONDENSING UNIT



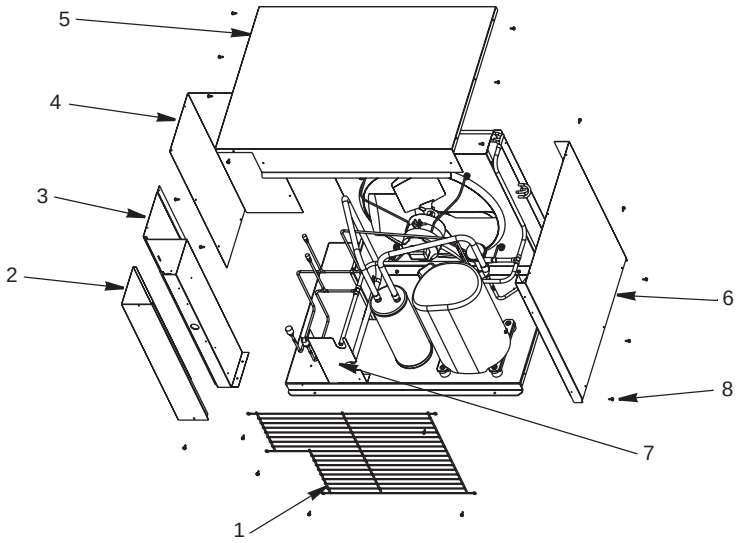


	DESCRIPTION	PART NUMBER
1	Compressor	
	a. 208-230V/60 Hz/1 ph	76-0002-3
	b. 208-230V/60 Hz/3 ph	76-0003-3
	c. 208-230V/50 Hz/1 ph	76-0004-3
2	Suction Accumulator	89-0058-3
3	Access Valve	83-7325-3
4	Air-Cooled Condenser	88-5139-3
5	Fan Motor	
	a. 208-230V/60 Hz/1 ph (or 3 ph)	24-1315-3
	b. 208-230V/50 Hz/1 ph	24-1318-3
6	Fan Blade	24-1623-3
7	Head Pressure Control Valve	83-6810-3
8	Fan Cycling Control	20-0126-3
9	High Pressure Cut Out Control	20-0124-3
10	Low Pressure Cut Out Control	23-5546-3
11	Start Relay 50-60 Hz/1 Ph	85-0457-3
12	Contactor 50-60 Hz/1 Ph	24-1035-3
	a. 60 Hz/3 Ph	20-0116-3
13	Start Capacitor 60 Hz/1 Ph	85-0385-3
	a. 50 Hz/1 Ph	85-0582-3
14	Run Capacitor 60 Hz/1 Ph	85-0497-3
	a. 50 Hz/1 Ph	85-0540-3
15	Filter, Suction Line	82-5054-3
	Miscellaneous Brackets, Screws, etc.	
16	Fan Shroud	603449-1
17	Fan Motor Mounting Bracket	34-0669-3
18	Fan Motor Mounting Screw	50-3358-9
	a. Fan Motor Mounting Lockwasher	55-4511-9
	b. Fan Motor Mounting Hexnut	54-2952-9
19	Fan Bracket Mounting Screw	50-3358-9
	a. Fan Bracket Mounting Lockwasher	55-4511-9
	b. Fan Bracket Mounting Flatwasher	55-7305-9
	c. Fan Bracket Mounting Rubber Wellnut	54-2955-9
20	Screw, #10-24 x .50 (Used For Panel Attachment - Not shown)	52-0206-9
21	Capacitor Mounting Bracket	603498-1
22	Capacitor Mounting Strap	602160-1
23	Terminal Block (50 Hz Only)	25-1125-3
24	Ground Screw	52-0216-9

Refer to Cross Reference Guide

MANITOWOC® SU1024YC ICEMAKER

CVD1075 CONDENSING UNIT PANELS



	DESCRIPTION	PART NUMBER
1	Condenser Fan Guard	34-0689-3
2	Control Box Cover	603477-1
3	Control Box Panel	603707-1
4	Left Side Panel	603729-1
5	Cover Top	603475-1
6	Right Side Panel	603470-1
7	Bracket	604226-1
Miscellaneous	Bracket s, Screws, etc.	
8	Screw, #10-24 x .50 Hex	52-0206-9

Refer to Cross Reference Guide

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Pump will not run but tank appears to be always full.	Black and/or red probe shorted	Remove probes and bend straight or replace with new probe(s)
	Problem with motor or motor wiring	Check line voltage first. Check AC voltage across load terminals on Liquid Level Control. If voltage is 120 plus or minus 10%, replace motor or motor wiring.
	Problem with Liquid Level Control Board.	Check line voltage first. If AC voltage across load terminals is not 120 plus or minus 10%, replace the Liquid Level Control Board.
	Common Lead (Green) shorted out to Red wire (High Probe)	Verify Green and Red wires are not touching.
Pump will not run but tank level appears to be below start level.	Common Lead (Green) shorted out to Black wire (Low Probe)	Verify Green and Black wires are not touching.
Pump motor does not shut off.	Problem with Liquid Level Control Board	Short the "H & L" terminals on the Liquid Level Control Board. If motor does not shut off, replace Liquid Level Control Board.
	Probe Harness Connection may be open.	Verify connections are good or replace the wiring harness.
	Water may not be reaching top probe in carb tank.	Verify tank is not filled with CO_2 or air by pulling relief valve up and letting air escape until water comes out.
	High Lead (Red) open or not connected.	Verify Red lead wire is connected from tank to unit.
	Common lead (Green) open or not connected.	Verify Green lead wire is connected from tank to unit.
Pump motor intermittent	Problem with probe or probe harness.	Check motor and motor wires by removing red and black wires from the Liquid Level Control Board. If okay, short "H & L" terminal on Liquid Level Control Board. If motor stays off, verify probes and bend straight or replace. Verify with meter.
	Problem with motor or motor wiring.	Measure AC voltage across load terminals on Liquid Level Control Board. If line voltage is 120 plus or minus 10% replace motor or motor wiring.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Pump motor intermittent	Problem with Liquid Level Control Board.	Check line voltage first. If AC voltage across load terminals on Liquid Level Control Board is not 120 plus or minus 10%, replace the Liquid Level Contorl board.
Pump motor starts and stops, short cycles, as soon as water level drops below Red (High) probe.	Black (Low) Lead wire is open or disconnected.	Verify connections and continuity of black wire from Liquid Level Control Board to Probes on Carb Tank.
Pump motor starts and stops, short cycles, as soon as water level drops below Black (Low) probe.	Red and Black Leads are switched with each other.	Verify Red Lead is going to Red probe and Balck Lead is going to Black probe.
Pump short cycles from below high probe to just above high probe - Low probe has no effect.	Red and Green Leads are switched with each other. Black and Green Leads are switched with each other.	Verify Red Lead is going to Red Probe and Green Lead is going to Ground Screw on tank Verify Black Lead is going to Black Probe and Green Lead is going to Ground Screw on tank.

DO NOT USE

Under Preventative Maintenance

Please post this page in front of dispenser when cleaning system.

INDEX

A

agitation 15, 16
agitation cycle 16
Agitator Motor 37
Ambient 10
Auger 21, 30, 36
Auger Drive 33
auger motor 21
Auger Transition 23, 38
Auger tube 21, 23
Auto Bag Selectors 18

B

B-I-B connectors 8
Back Room Package 19
Bag-In-Box 18, 19, 24, 25
Beverage Cooling 16
Beverage System 24
beverage tube 15
beverage valve 16
BIB pressure gauge 19
Bin 39
Bin Liner 16, 21, 23
bracket 23

C

Carb Pump 35
Carbon Dioxide 6, 20
Carbonated 10
Carbonation 20
Carbonator 8, 19, 20
carbonator tank 20
Carbonator Water pump 19
CAUTION 23
Check List 8
claims 14
clamps 8
Cleaning 24
CO2 ..... 7, 9, 20
CO2 cylinder 19
CO2 monitors 7
Cold Carb 10
Cold Plate 16, 23
Components 20
Condensing Unit 43, 44
conductivity probes 20
Control Box 40
Conversion 10
counter 8
Covers 27
cube ice 14
Cuber 28, 34
CVD® 10
CVD1075 ..... 43, 44

D

damage 3, 14
delivery 3, 14
Diagrams 27
diffusers 20, 22
disassemble 21
dispense point 16
dispenser 8, 15, 23
Dispensing 14
dispensing valves 22
Distributor 3
door 23
door lock 16
Drain 8, 30
drain pan 23, 28
drains 8
drink tower 15
drive motor 15
ducts 8
dynamic pressure 19

E

Electric Box 38
electric motor 20
electrical box 20
Equipment 15
Evaporator 40
Exploded Views 26
exterior 22
External Carbonator tank 19

F

fittings 20
FOREWORD 3

G

gear motor 16
guidelines 9

H

health department 22
hoses 15

I

Ice 14
Ice Agitation 16
ice chute 21, 23
ice dispenser 15
ice storage 15, 16
Icemaker 10, 40
Inspection 3, 14
INSTALLATION 8
Installation Date 3
Instructions 22
Internal Carbonation 20
irregularities 3

K

key switch 22

L

liquid level control 20
local code 9
location 8, 19
lock 23
low probe 20

M

Maintenance 21, 22, 23, 24, 25
Manitowoc Beverage Equipment3
MANITOWOC® 10
MBE 3
MBE Distributor 3
micro switch 16
mixing ratio 16
Model Number 3
modifications 6
Monthly Cleaning 23
motor 19, 20

N

non-carbonated 10
nozzles 20, 22
nylon washer 20

O

Oetiker 8
Operation 6, 20
OVERVIEW 14

P

paddle wheel 16
Panels 27, 44
Parts 27
periodic agitation 16
PLUMBING 13
Power outlet 8
Pre-installation 8
pre-plumbed 20
pressure gauge 10
Primary pressure regulator 19
probes 20
pump 18, 19, 20
pump deck 19

Q

Qualified Service Personnel 6
QuietQube® 10

R

rack 8
red probe 20
refrigerant lines 15
Refrigeration 41, 42
regulations 22
Relocation 6
Rocking Chute 16, 36
rotary vane pump 20

S

SAFETY 6, 7
sanitizing 7, 23
Secondary pressure regulator 19
Serial Number 3
Service Agent 3
service assistance 3
Service Personnel 6
Shipping 6
Shipping, Storage, Relocation .. 6
soapy water 22, 23
soda water 16
solvents 23
Specifications 17, 18
splash panel 7, 28
spout 21, 23
start-up 6
Storage 6
SU1024YC 10, 40
Super Cooled 14
syrup 16, 18
syrup boxes 8
Syrup Connections 9
Syrup pump 19

T

TABLE OF CONTENTS 5
tap water 20
Telephone Number 3
transition 23
TROUBLESHOOTING 45
tubes 16
tubing 8

U

Unit Inspection 14
UNPACKING 3

V

valve 13, 16
Valve Mount Cap 37
valve nozzles 20

W

Warning 6
WARRANTY 3
water 16, 19, 20
Water Connections 9
water inlet 20
Water line 8
water pressure 20
water pump 20
water-to-syrup ratio. *See* brixing
Wiring 26

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In accordance with our policy of continuous product development and improvement, this information is subject to change at any time without notice.

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